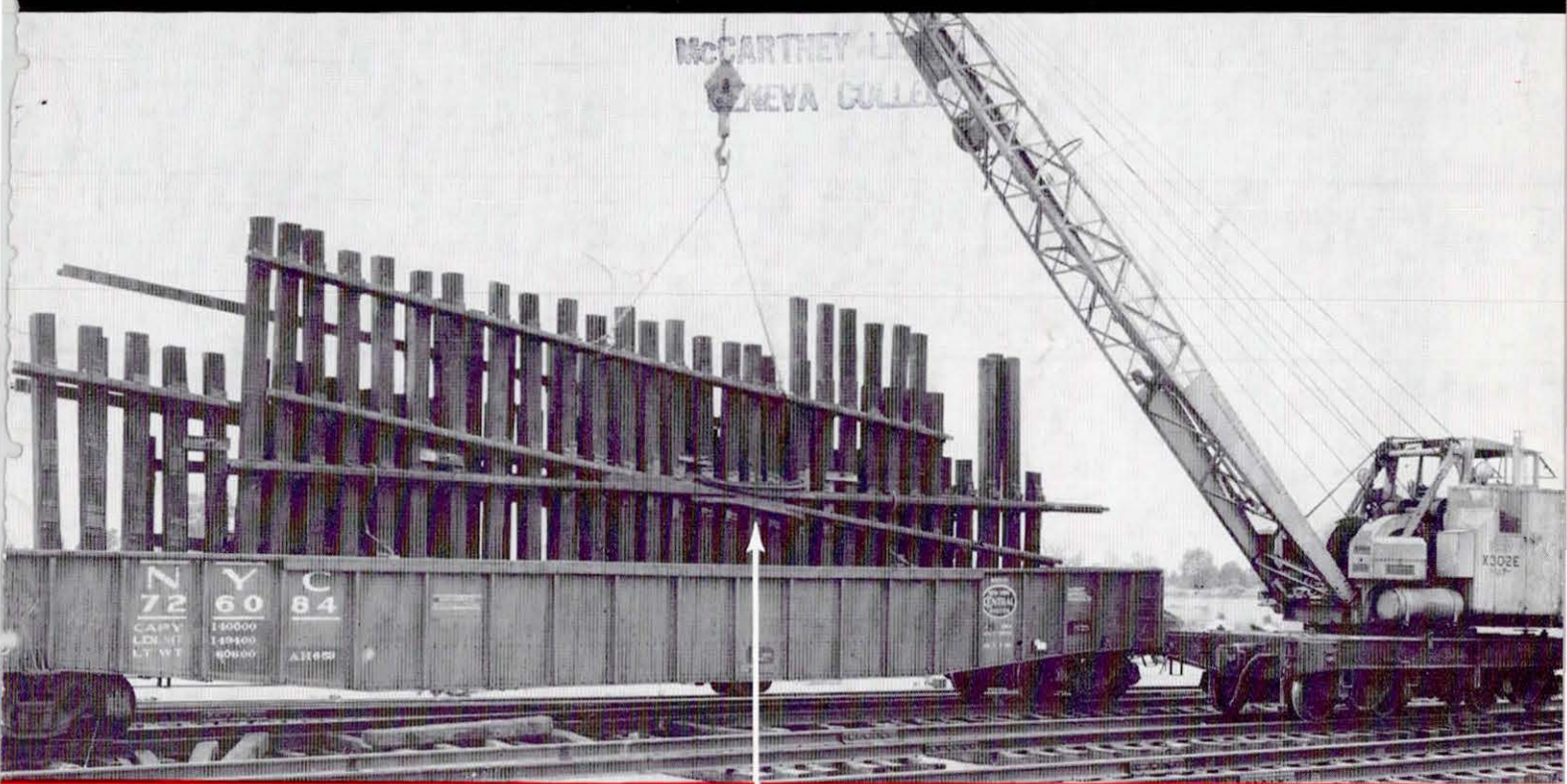
How Close Are You To The Colleges? ... p. 42

March 7, 1960

RAILWAY AGE *weekly*



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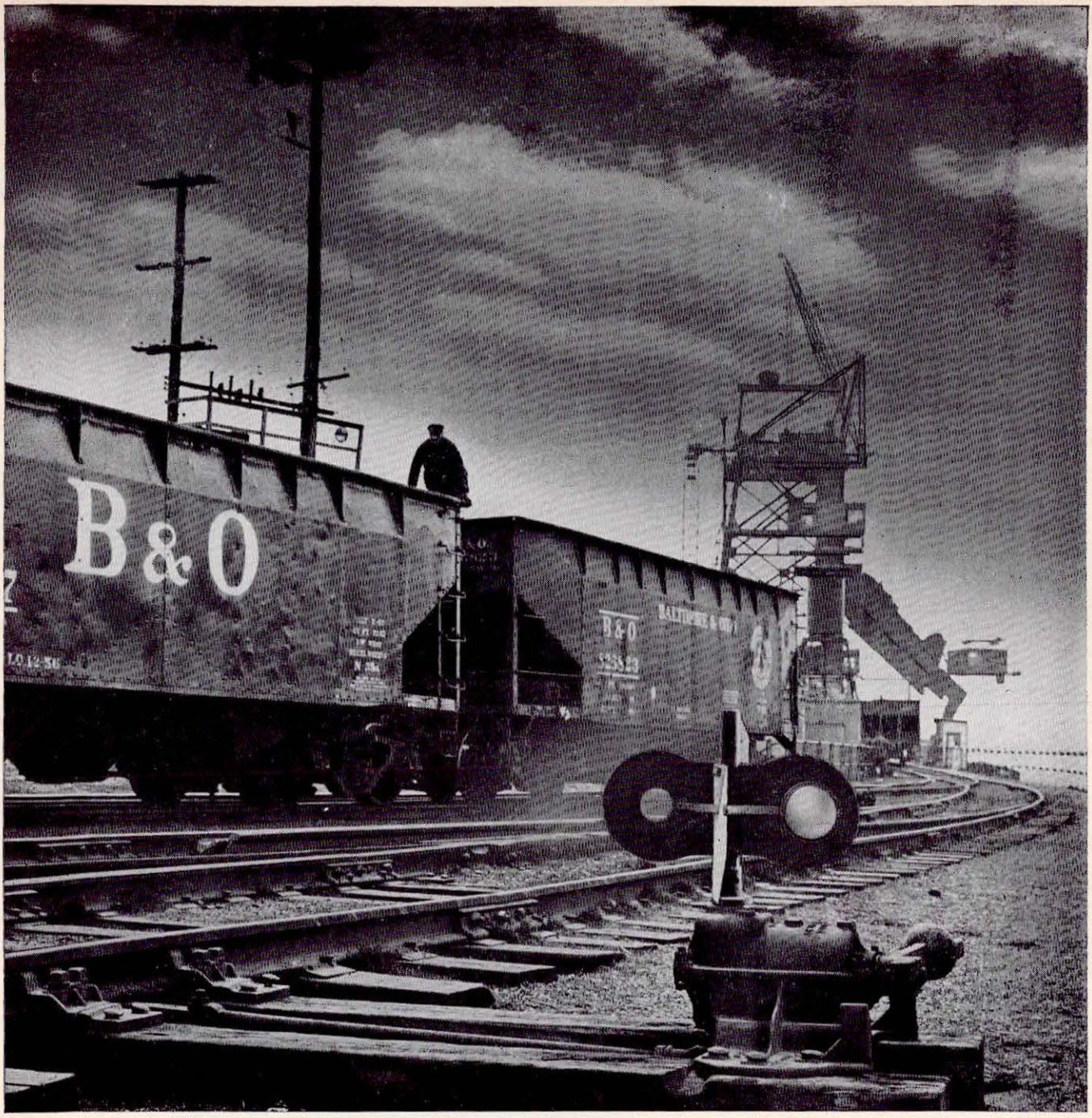

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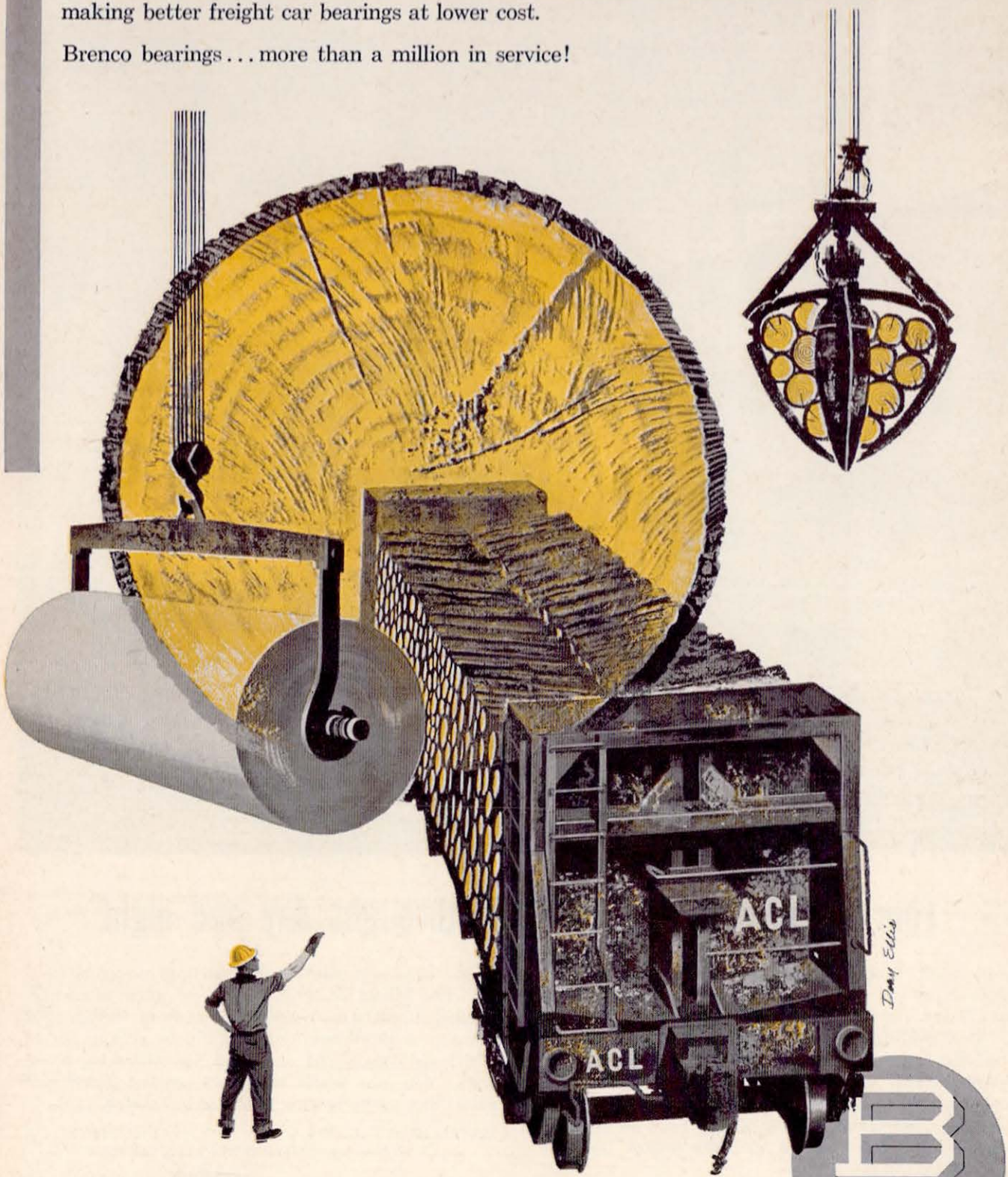

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BRENCO BEARINGS

RAILWAY AGE *weekly* March 7, 1960 • Vol. 148, No. 10

Week at a Glance

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RRs need speed, rates, balance ..... p. 9

Shippers want "a combination of speed and price," says U.S. Freight's Morris Forgash. To meet the challenge, in his opinion, railroads must provide still faster freight service; extend incentive rates to larger-than-carload quantities; and develop a better traffic balance.

Cover Story—Prefab track cuts yard costs p.17

Here's how automation and continuous-flow assembly-line techniques help the New York Central make big savings in its new yard trackwork. The techniques have been applied to scrapping unneeded track in one area and building track in another.

This reefer costs less to run p.27

More effective insulation and elimination of some expensive electrical equipment have lowered the car's costs. The mechanical refrigerator car, now in experimental service, was built at the Burlington's Havelock, Neb., shop.

Highway tanker curbs urged p.36

Demands for rigid restrictions on the highway movement of inflammable and explosive cargoes have followed last week's fiery train-truck collision in California.

Track-car 'compromise' hit p.38

Labor leaders have offered an "alleged cure for the featherbedding inherent" in the track-car bill—but the amendment, says the AAR, would be "utterly ineffective."

The Action Page—How close are you to the colleges? p.42

Some railroads have put their academic contacts on an adequately comprehensive and continuing basis. A lot of them have not. It's too important an area to be dealt with catch as catch can.

Short and Significant

An optimistic outlook on commuter aid . . .

possibilities has brought about a shift in New Haven plans on new cars. President George Alpert last week told the Connecticut Public Utilities Commission that he thinks the

"The big switch" grew twice as big in 1959

Almost 32,000 car sets of Timken® Heavy Duty-High Mileage "AP" tapered freight car roller bearings were ordered in 1959. This brings the total of Timken bearing-equipped "Roller Freight" cars in service or on order to 53,270.

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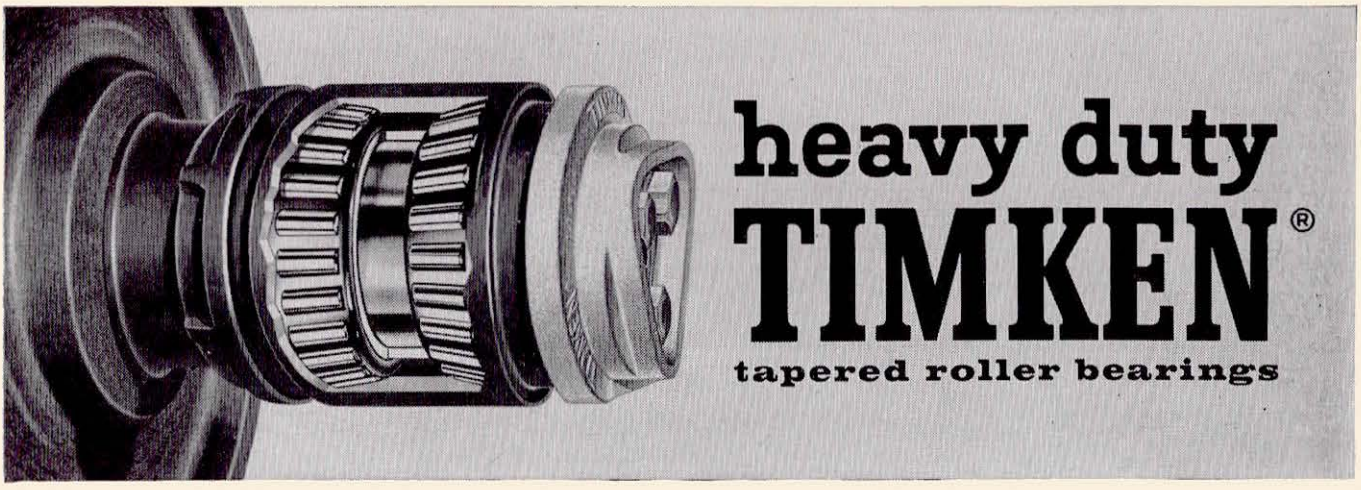

Week at a Glance CONT.

Current Statistics

Operating revenues	
12 mos., 1959	$9,826,128,939
12 mos., 1958	9,564,940,702
Operating expenses	
12 mos., 1959	7,704,573,256
12 mos., 1958	7,544,050,298
Taxes	
12 mos., 1959	1,047,194,279
12 mos., 1958	957,258,608
Net railway operating income	
12 mos., 1959	749,476,425
12 mos., 1958	762,355,862
Net income estimated	
12 mos., 1959	574,000,000
12 mos., 1958	603,000,000
Average price railroad stocks	
Mar. 1, 1960	97.54
Mar. 3, 1959	109.69
Carloadings, revenue freight	
7 wks. 1960	4,126,172
7 wks. 1959	3,991,895
Freight cars on order	
Feb. 1, 1960	48,170
Feb. 1, 1959	29,470
Freight-cars-delivered	
1 mo., 1960	2,849
1 mo., 1959	1,940

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road is likely to win the commuter subsidies it says it needs to continue suburban operation (RA, Jan. 11, p. 9). As a result, Mr. Alpert, reversing the position he took in January, now says that his road will order 50 new air-conditioned commuter cars under New York Governor Rockefeller's commuter-aid plan (which calls on the Port of New York Authority to arrange part of the financing and lease up to 100 cars to the NH and an additional 270 to the NYC and LIRR).

The BLE wage case arbitration panel . . .

will include three repeaters from the 1954 board which rejected the union's demand—including the two neutral members, Archibald Cox of Harvard Law School and Richard A. Lester of Princeton University. D. S. Beattie, director of research and statistics for the brotherhood, will also serve on the board, as he did six years ago. Second BLE member of the board will be R. E. Davidson, first assistant grand chief. Carrier representatives will be J. E. Wolfe, vice president, Burlington, and Guy W. Knight, director—labor relations, PRR.

Seaway freight rates may be higher . . .

during the 1960 navigation season, scheduled to begin about April 15. Increase, between Lake ports and Europe, is currently predicted to run about 10% on general cargo; $1 per ton, initially, on export grain.

President Eisenhower created an emergency board . . .

while on tour in South America last week to head off a threatened strike by the ORC&B against the New York Central. This will delay the strike at least 60 days. At issue is the servicing of sleeping cars. The railroad took these over from Pullman Co. almost two years ago and assigned train conductors to sleeping car duties. The union objects to additional duties on train conductors, seeks to have only Pullman conductors assigned to sleeping cars.

An attempt to bankrupt passenger railroads . . .

in New Jersey has been charged against the state's PUC by DL&W President P. M. Shoemaker. In an open letter to PUC President R. L. Fusco, Mr. Shoemaker asserted that the state agency's annual report for 1959 contained "omissions and misstatements" tending to obscure "long delays in deciding most important railroad cases, failure to hold joint hearings with the ICC on common interest and common purpose fare increases . . . no decision at all on curtailments of unessential service," which, Mr. Shoemaker said, added up to "the board's policy of taking all possible steps to bankrupt the passenger-carrying railroads."

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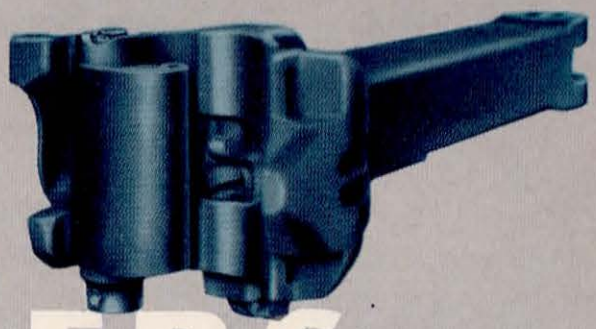

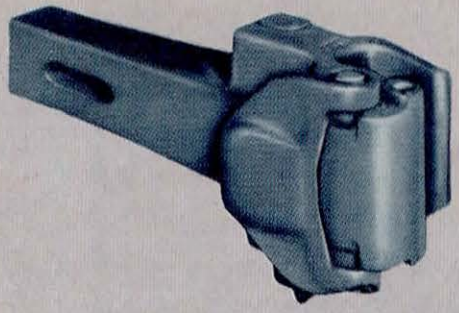

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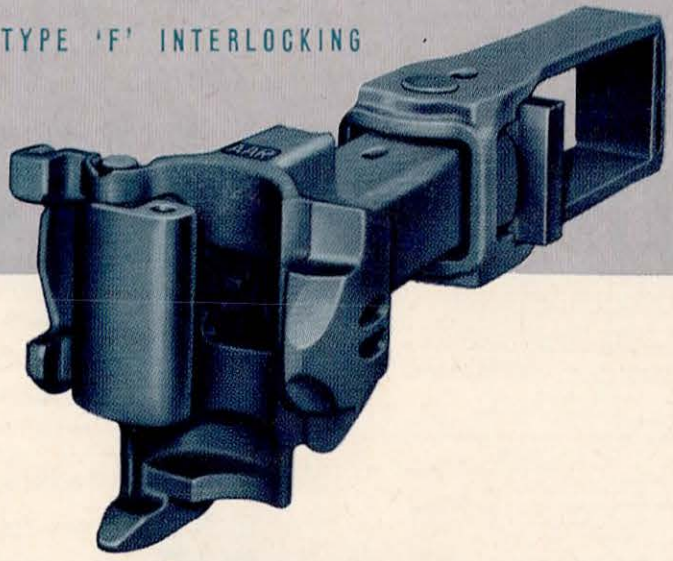

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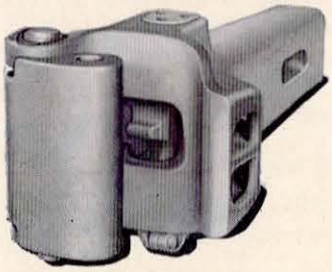

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RRs Need Speed, Rates, Balance

► **The Story at a Glance: "The shipping public doesn't buy a mode of transport. It buys a combination of speed and price, and the carrier which can provide the best combination is going to get the business."**

For the railroads, that means: (1) still faster freight service; (2) incentive rates on multi-car or trainload levels; and (3) better traffic balance.

That's the problem, and the remedy, outlined to New York's Transportation Research Forum on March 1 by Morris Forgash, president, U. S. Freight Co.

Railroads have the inherent ability to haul a given unit load over long distances at the optimum combination of lowest total cost and highest effective speed, U. S. Freight Co. President Morris Forgash told railroad traffic, rate and financial men in New York last week.

But that advantage may disappear, he warned, as new superhighways and the double-bottom concept permit heavier truck loads and higher truck speeds. To maintain or improve their present position, therefore, railroads must: (1) give faster service at least on selected traffic; (2) extend incentive rates to larger-than-carload quantities; and (3) utilize "all-purpose" containers to correct the present unbalanced traffic load.

It now costs a railroad, Mr. Forgash said, about 19 cents per mile to piggyback a trailer from Chicago to the Pacific Coast. It costs a truck company 35 or 36 cents a mile to haul a comparable trailer by highway.

Full benefit of that cost advantage can only be realized, however, when railroads couple with it their "mechanical ability" to haul trailers to the Pacific Coast in "50 hours from Chicago" or "65 hours from New York." In his New York talk, he went even farther—to suggest the possibility of "50-hour service, coast-to-coast."

Schedules like that, he insists, are perfectly feasible, at least for trains of "up to 35 cars, with roller-bearing equipment." "A piggyback train of that length will produce revenue per train-mile equal to the highest average train-mile revenue of the Santa Fe."

U. S. Freight, Mr. Forgash says, would gladly pay a premium rate for such service. Schedules like that, he declared, would meet or beat superhighway speeds. And they would "squeeze out" the growing threat of air freight by reducing its time advantage over surface transport to a point where shippers would be unwilling to pay air's higher cost.

Mr. Forgash, however, visualizes the day when "new superhighways" will permit truckers to operate "trains of three, four, five trailers, with payloads of 100,000, 200,000 lb." To meet the competition of these "triple, quadruple, quintuple bottoms," the rails will have to extend their incentive rate theories from a carload to a "multi-car or even trainload" basis.

In addition, they must find a way to overcome their "40% traffic imbalance," and the empty car mileage which results from the necessity of providing special equipment for one-way moves. "This may be a public service, but I don't believe there's any profit in it."

The answer here, Mr. Forgash said, lies in greater use of "all-purpose" containers or trailers. "We've already demonstrated one which can carry two automobiles plus a U. S. Rubber Co. 'Sealdtank' collapsible container holding 3,000 gallons of liquid freight. We're just about off the drawing boards with a trailer which will hold four large or six small autos, a 4,300-gal liquid container, dry freight, perishables—or various combinations of those items. As soon as we get a firm ruling in pending piggyback cases we'll buy a lot of refrigerated trailers. We'll use them to balance our westbound flow by hauling farm products east.

"Right now we regulate our outbound business, coast-to-coast, by what we have coming back, and we don't let ourselves grow any faster westbound than eastbound," Mr. Forgash said.

"We'll never reach a fully standardized all-purpose container. If we do, it will mean the end of progress. What we want is one that will cover the greatest possible number of uses."

Mr. Forgash also revealed that freight forwarders are considering an equipment pool plan, which, if realized, would enable them to reduce equipment, inventory, idle time and empty return.

Mr. Forgash characterized current discussion of inter-modal coordination and joint rates as "confused and garbled." "Coordination and substituted service," he said, "are not the same. You cannot have joint rates without coordination, but you can have joint rates and coordination without substituted service. The only type of contemplated joint rate which makes economic sense is the conjunctive type—when one form of transport continues in a straight line where another leaves off."

'Most Exciting Development'

"The most exciting development in transportation in our time is piggyback, which is shaking our former concept of containers and material handling to the core. It involves incentive rates, load factors, pricing and coordination of various forms of transportation in new ways.

"We are coming out of the doldrums of being riveted to the steel rail as our economy grows away from the railheads. If the railroads cannot compete against these conditions, they must perish.

"There is no solution to this problem in the political arena. Legislation never solved anything. The only answer is in economic or mathematical terms: Which form of transportation can best perform the terminal-to-terminal service between two given points?

"The question of when something is expensive and when it is economic is a question of your load factor. What do you do with it? How many cars will the new unit displace?"

RRs Best for Bulky Freight—AAR

Huge missiles, atomic reactors and other over-sized and heavy-weight shipments are moving by rail all the time throughout the country, saving both tax dollars and the public highways, Congress was told last week.

Ralph E. Clark, chairman of the Car Service Division of the Association of American Railroads informed a special highway subcommittee of the House Committee on Public Works, that the raising of highway bridges from 14-ft to 16-ft "will not enable the highways to accommodate any important military shipments which cannot now be handled otherwise."

He referred to proposals to increase the maximum overpass clearances on interstate highways at an estimated additional cost to taxpayers of $1.5 billion.

The Car Service Division head emphasized that the railroads are continuing to handle military requirements for heavy shipments including the Polaris, Jupiter and Titan missiles. Recently, a full-sized model of the Minuteman (ICBM) together with its launching equipment, mounted on a 72-ft highway trailer and weighing close to 90,000 lb, was moved on one of the many 85-ft piggyback flat cars now in regular railroad service.

Mr. Clark reported that the railroads have provided a fleet of 705 special-type freight cars, some of which cost over $100,000, for moving outsized and heavy-weight shipments. Some of these cars will handle loads exceeding 600,000 lb, and a great many of them have depressed centers to carry high shipments, he noted.

In addition to the railroads' fleet of heavy-capacity flat cars, the Department of Defense has in active service 929 government-owned cars capable of handling big shipments over the railroads under supervision of the Military Traffic Management Agency. According to Mr. Clark, this combined fleet of 1,634 railroad and government-owned cars represents an investment of $33,000,000 and has "the capacity to move by railroad practically every item of military traffic."

The AAR official cited the request of the military services for the movement of two airplane wings over 19-ft high from an Air Force installation in Oklahoma to Norfolk, Va.

"They found that it was only the railroads that could transport these wings and it was done by using an open-pit well car which allows a load to be suspended 6 in. from the rails and making the extreme height of the shipment approximately 19 ft 10 in.," he said.

Referring to the example of "routine" jobs performed daily by the railroads, Mr. Clark reported the lines recently moved a 17-ft-high 310,000-lb transformer from Tennessee to Alabama for the TVA and routed a large turbine weighing 610,000 lb from a point in New York State to New Jersey. "Individual railroads, and this Association," Mr. Clark said, "are so organized that requests for clearances on oversized shipments or of excessive weights for handling by railroads can be checked promptly and do not require the issuing of special permits as are necessary for similar shipments moving on the highways."

Watching Washington *with Walter Taft*

• **THE ICC STILL WANTS** three changes in the 1958 Transportation Act's train-off provisions. At hearings last week before a House Interstate Commerce subcommittee, the Commission recommended that the railroads be required to give 40 days notice (instead of 30) when proposing service abandonments; that the period for which the Commission may suspend such notices be increased from four to seven months; and that the burden of proof be put on the railroads.

CONCERN about this burden-of-proof proposal has been expressed by informed railroad men—despite a Commission statement that the issue "is of more theoretical than practical importance" (RA, Dec. 21/28, 1959, p. 10). The Commission now says a railroad should be required to show that public convenience and necessity permit a proposed discontinuance of service and that continuance would impose an undue burden on interstate commerce.

A TRAIN-OFF NOTICE now becomes effective unless the Commission finds the service required by public convenience and necessity. The Commission is "inclined to believe" that this puts the burden of proof on those objecting to the proposed discontinuance. It wants Congress to remove all doubt.

THE COMMISSION OPPOSES pending bills which would repeal or emasculate the train-off provisions. Some of these bills would grant the Commission broad new powers over passenger services, give it unlimited time to decide train-off cases, and permit it to impose labor-protection conditions.

BURDENS imposed on the railroads by enactment of such legislation would tend to aggravate the passenger-service problem, the Commission told the subcommittee. That's the legislation which is favored by the Railway Labor Executives' Association.

RLEA CHAIRMAN GEORGE E. LEIGHTY urged its "immediate enactment." He charged that the present train-off provisions are "so written as to make inevitable the complete elimination of passenger-train service at the will of the railroads."

THE RAILROADS' PRESENTATION will be made at a future hearing. Meanwhile, the AAR board of directors has asserted that legislation of the type advocated by RLEA "could sabotage efforts to revive and maintain strong passenger train services."

THE PUBLIC is fully protected by the present law, the AAR directors contend. They say, too, that train services have been lost largely because of government activities in "encouraging, developing, subsidizing and underwriting with public funds competition on the highways and airways."

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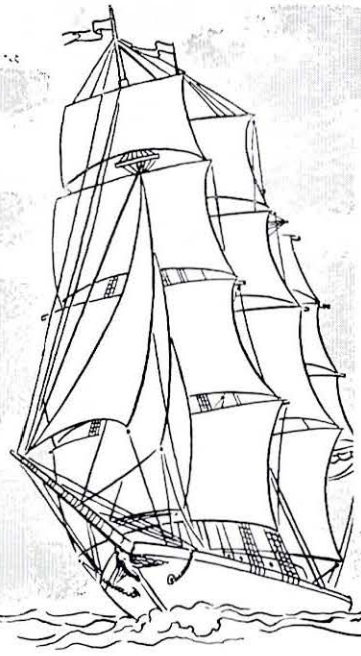

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A Factual Report on COBRA* SHOES

based on a personal interview with Mr. Walter Kresge, General Superintendent, Pittsburgh & West Virginia Railroad Company

What does railroad management think of COBRA SHOES after some four years and 200,000,000 (200 million!) vehicle miles of service? That's the question . . . and while we folks who make COBRA SHOES, and have been continuously testing them under almost every conceivable condition of service, might think we know the answers, we learn something new almost every installation about these truly revolutionary brake shoes. But, to let you hear direct from a man who is in a position to observe the actual in-service performance of COBRA SHOES, we sent R. A. Mitchell, our representative, out to the Rook Yards of the Pittsburgh & West Virginia Railroad Company (near Pittsburgh) to interview Mr. Walter Kresge, General Superintendent. Mr. Kresge is the superintendent of both the Operations and Mechanical departments.

Mr. Mitchell: We understand that your yard locomotives are all equipped with COBRA SHOES.

Supt. Kresge: Yes. But our yard locomotives are *also* our road locomotives, so the fact is, all locomotives in service on the Pittsburgh & West Virginia Railroad are 100% COBRA SHOE equipped. We also have COBRA SHOES on our officials' cars.

Q. How long have you been using COBRA SHOES? And what prompted your Line to try them?

A. Our first unit with the COBRA SHOE went into service June 12, 1958. We decided to try COBRA SHOES after hearing about the good results other railroads were obtaining with this modern composition shoe. And, since we wanted to get away from welding up flat spots, we put your COBRA SHOES on all of our locomotives.

Q. Your COBRA SHOE-equipped power has probably been in service long enough now to draw some conclusions. Would you care to tell us exactly what you think of them?

A. Yes. I have no reservations about your new product. COBRA SHOES are the answer to a lot of problems for a Line like ours. You see, our road power operates over grades which definitely present a problem in braking.

Our COBRA SHOE-equipped locomotives, in constant yard and heavy road service, have averaged 75,000 miles between wheel turnings, which is well in excess of our former experience. *And, to date, we have not had a single case of thermal cracked wheels.*

Furthermore, our Line is a curvy one. Straightaways on the Pittsburgh & West Virginia Railroad are probably not longer than 1½ miles. This provides a good test of flange wear. With COBRA SHOES there is less flange wear—wheels maintain better contour—and wheels last longer.

To sum up, our experience with COBRA SHOES has been highly satisfactory. As far as the Pittsburgh & West Virginia Railroad is concerned, COBRA SHOES have eliminated thermal cracking and flat spots. We are getting four times the shoe life we did with our old type shoes. And wheels retain their standard contour for much longer periods.

Mr. Mitchell: Thank you, Mr. Kresge. You sound most enthusiastic about COBRA SHOES. Is there anything you'd care to add to your foregoing comments?

Mr. Kresge: Only to remind anyone considering COBRA SHOES that they introduce an entirely new concept in braking and, as with anything new, they require an educational approach on the part of the Road Foreman and Engineman. *Be sure these important men understand just what these new shoes can do.* To get maximum advantage, I also recommend that when applying these shoes to Road Power, that all units of a locomotive should be equipped at the same time.

*Registered U.S. Trademark

That's it . . . and we think you'll agree that Mr. Kresge's comments have been helpful. But, almost every installation or application of COBRA SHOES is different. *Know what you want to do before you do it.* The situation prevailing on one railroad may not exist on another. But, we have accumulated a wealth of information which may exactly match conditions on your Line. At any rate, regardless of the type of equipment you operate or the conditions under which you operate, you can almost assuredly use COBRA SHOES to reduce or eliminate thermal cracking, worn flanges and flat spots. We will be glad to answer your inquiries . . . in person, if you prefer.

COBRA SHOE installations are growing in number and volume. 97 railroads have such installations—16 more have shoes on order. Total units involved are 5313, consisting of 3585 freight cars, 698 passenger cars, 561 subway cars and 469 locomotives. Cumulative data on all types of service, totaling 200,000,000 vehicle miles, parallel Mr. Kresge's experience of four times the shoe wear and greatly extended wheel life.

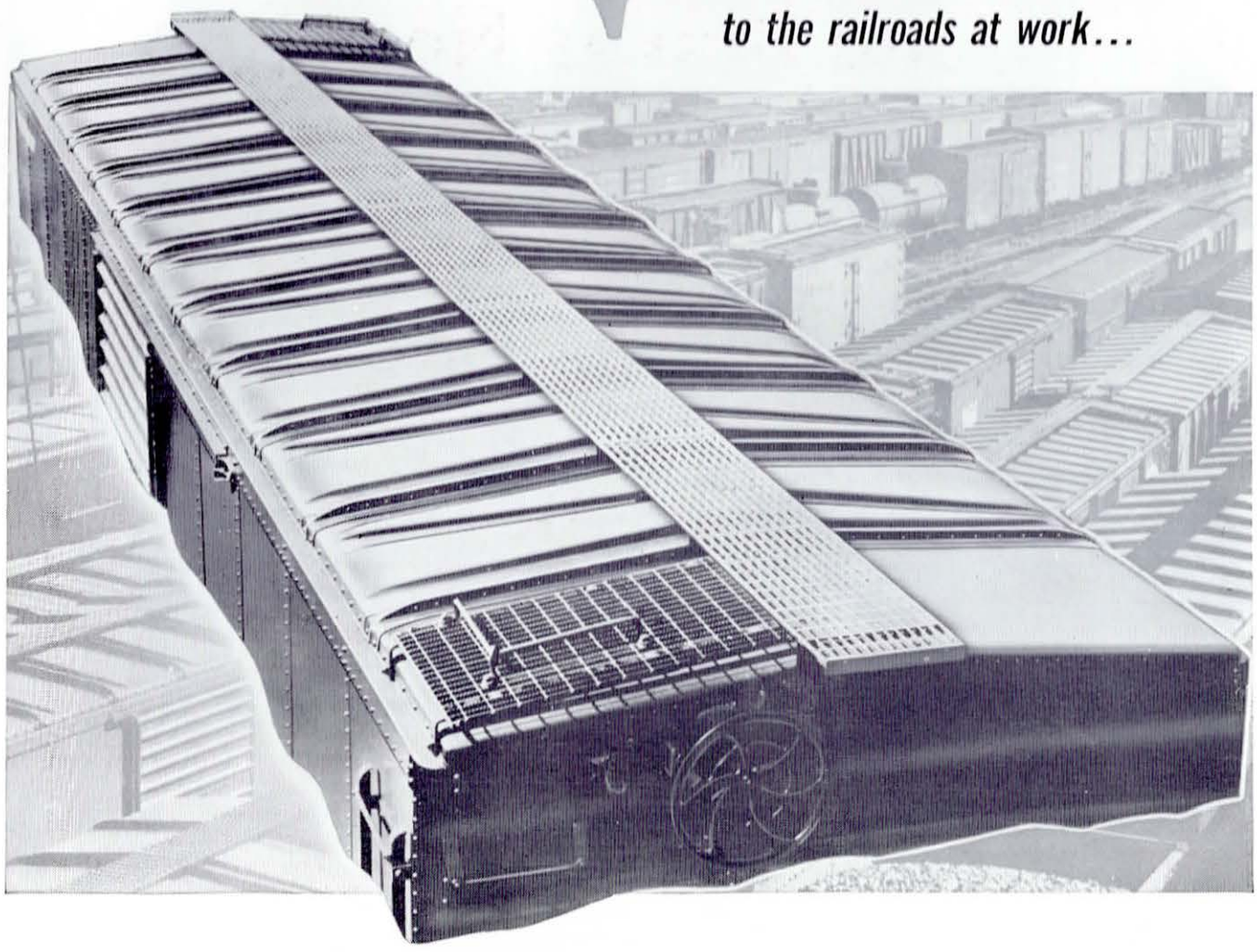
The COBRA SHOE . . . a product of the combined research facilities of

WESTINGHOUSE AIR BRAKE COMPANY
Specialists in Braking

JOHNS-MANVILLE CORPORATION
Specialists in Friction Material

RAILROAD FRICTION PRODUCTS CORPORATION *Wilmerding, Pennsylvania*

Here's **STANDARD'S** *responsibility to the railroads at work...*



STANDARD'S

Diagonal Panel Roof

combines strength and resiliency for ultimate performance–limited depths

Standard's Diagonal Panel Roof gives you the strongest possible design for its depth—vital in these days of higher cars. Why Standard more than any other? Because Standard's unique Diagonal Panel design provides a free flow of metal that eliminates stress concentrations. The roof is weather-proof. Lasts the life of the car. Keeps the carframe square.

STANDARD RAILWAY EQUIPMENT DIVISION
OF STANDARD RAILWAY EQUIPMENT MANUFACTURING COMPANY
HAMMOND, INDIANA

CHICAGO, ILLINOIS • NEW YORK, NEW YORK • SAN FRANCISCO, CALIFORNIA

Why Hand Brakes Near Roof?

Following is my personal opinion:

First, we learn that the hand brake wheel was placed at the top of box, hopper, refrigerator, stock car, etc., because it was necessary for trainmen to patrol the train from the top of cars when ascending grades to help the engineer control the train with hand brakes when necessary, and to set retainers to assist the engineer in controlling his air supply. Also, when the train had traversed the mountain and reached level territory, the trainmen released the hand brakes and set the retainers in non-retaining position.

This could happen several times on a trip, depending upon the undulation of the terrain, thus the running board on top of cars and the brake wheels located at top of each car for convenience as the trainmen walked from car to car.

The trainman's hazardous duties were necessitated by the inadequate brake mechanism which existed 30 or 40 years ago. It was the best that car-equipment engineers could provide at that time. But for safety it was necessary to augment the air brake control with manual control of hand brakes and air retainer valves.

Improved foundation brake gear, control features on engines and greater air capacity together with dynamic brakes on modern locomotives make it unnecessary for trainmen to ride out on top of cars in all kinds of weather to help the engineer control the train. The engineer has at his finger tips sufficient braking power to control the longest trains under all conditions.

I can see no reason why the hand brake wheel and the retainer valve cannot be located today within easy reach of a man standing on a sill step of a car. When it is necessary to use retainer valves on trains, arrangements can usually be made so that such retainers are set while the train is standing, and after they have served their braking function, the retainers are released at rest.

It might be well to consider the cost of a freight car hydraulic brake which would require a very small amount of manual effort for a maximum of power. Cost of such an installation may be prohibitive.

Running boards on covered hoppers, box, refrigerator and stock cars, etc., also served a purpose in the past, but, like the hand brake wheel, have become less important. If a program [of eliminating running boards] is contemplated, I feel a survey should be made of all railroads for a broader picture, as there may be some objection by some railroads. Any work along this line surely should be standardized for interchangeability of parts for repairs to any system which may be decided upon.—*J. B. Robinson, Sr., assistant superintendent, Western Maryland.*

A forum for railroaders who want to explore questions of importance to their industry, this column welcomes both questions and answers from readers at all levels of responsibility in the industry and associated fields. We'll pay $10 to any reader submitting a question that forms the basis for a column discussion. Address correspondence to Questions and Answer Editor, Railway Age, 30 Church St., New York 7, N. Y.

What Are Big Railroad Questions?

Run-Through Yard Switches?

I would like to submit the following for your consideration: "Why not yard switches designed to be run through?"

One of the frequently occurring problems of day to day operations, both from a maintenance and a discipline point of view, is the switch which has been run through.

A possible solution to this problem is the use of a "lever operated, spring actuated" switch-operating mechanism. Various commercially produced switch-operating devices of this kind have been in successful use for many years by, among others, the British Railways and other Commonwealth railway systems.

The switch mechanism is designed to complete the movement of the switch point into the run-through position as soon as the leading wheels have pushed the point approximately half way towards the new position. The switch will then remain locked in that position until it is either run through again, from the other way, or until it is thrown by hand in the normal manner.

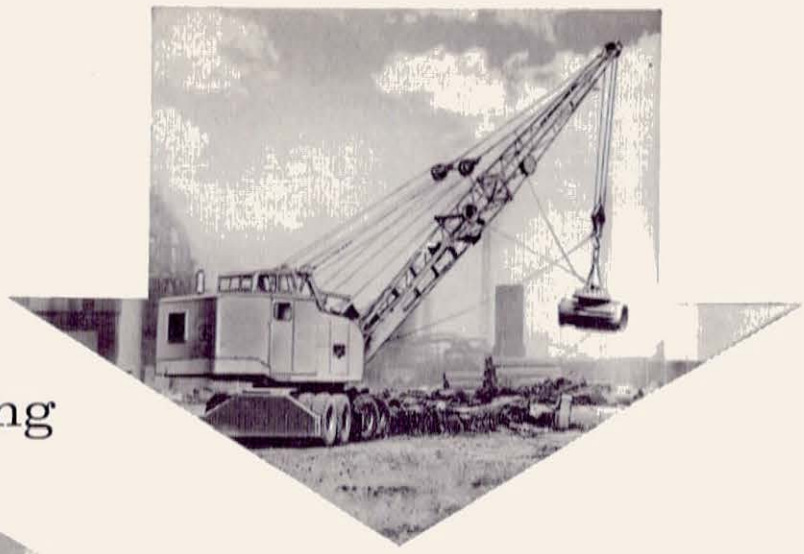
Other features of this type of switch mechanism are:

(1) An operating lever which is pulled with one hand from an upright position; (2) the lever is always pulled in the same direction regardless of the way switch points are to be lined; (3) virtual elimination of lights and targets; and (4) positive spring locking for movements in the facing direction.

In addition to the mechanical features mentioned above, considerable time can be saved in flat switching yards since this switch mechanism can be thrown very quickly and because it eliminates the time required to stop and throw switches not properly lined for trailing movements.—*Henry C. Christie, diesel supervisor, Chicago, Rock Island & Pacific.*

What Are O/P Costs?

What are "out of pocket" costs? The answer to this question is important—not only for management control of railroad operations—but to enable railroads to make effective competitive rates. Generally speaking, the ICC will not permit railroads to offer rates which are less than "out of pocket" costs—and railroads would not want to make such rates even if permitted, *provided out of pocket cost computations are accurate.* But are the ICC's so-called "Form A out-of-pocket costs" acceptable? Some question them—especially because they include the expense of a 4% return on equipment and a 2% return on fixed property. Do you believe "Form A costs" are acceptable as a "rate floor"? And, if not, what modifications would you suggest?—*Walter B. Wright, Executive Consultant, Rate Research, Chesapeake & Ohio.*



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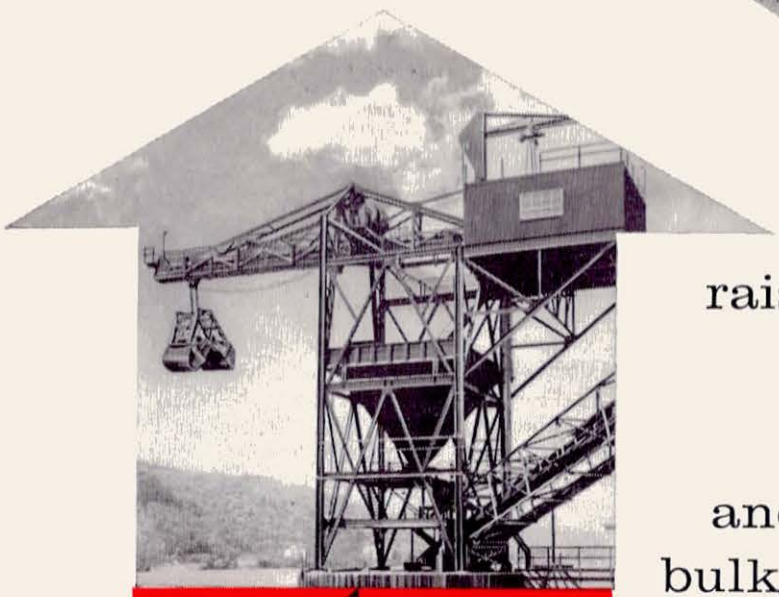

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Prefab Track Cuts Yard Costs

New York Central has a new technique for keeping yard track costs low: a 600-mile assembly line that picks up tracks no longer needed in new CTC territory, moves them in regular freight service, and puts them down again at the yard site. As NYC President A. E. Perlman has pointed out, the road is getting track for the new electronic yard near Indianapolis at 75¢ a foot—compared with $2.58 a foot for yard track in the similar Elkhart yard.

The big savings the Central is making in its new yard trackwork stem from two things—automation and continuous-flow assembly-line techniques—applied to scrapping unneeded track in one area and building track in another. When the Central decided to use former third and fourth track main line (made available by new CTC in the Eastern District) as the source for most of the track material in the new Indianapolis yard, the road's maintenance of way engineers began figuring how to move the materials most efficiently.

The answer they came up with—moving the track in panels—put some new wrinkles on an old idea. They found that regular track gangs in the Syracuse area could pick up track at almost any speed needed to keep up with yard progress. The track panels then move as regular freight to Indianapolis. Just enough gondolas are allowed to accumulate at the yard site to keep ahead of the laying gang—again local railroad forces using equipment on hand.

Worn out rails and fittings and switch materials go in a different load to the scrap and reclamation shop at Ashtabula, Ohio. Reclaimed, they are prefabricated into new switches at Beech Grove shops and, as needed, put in the assembly line for the new yard.

Gondolas for the "assembly line" come from cars unfit for revenue service without repairs, one of many economies of the method. At least half the cost of dismantling the old track is saved simply by picking it up whole. And in laying new track, the fact that it is already assembled saves as much as two-thirds of the cost of starting from scratch. Furthermore, track-laying by the panel method is fast. Without the necessity of dismantling track in one location and rebuilding it in another, getting track at the new location becomes a simple matter of transportation. And, as Central's M/W people said, transportation is a railroad's business.

(*More pictures on next two pages*)

Steps in Central's Panel Track Assembly Line

1 **For comments on this sequence of pictures of NYC's panel-track operation, Railway Age went to K. E. Dunn, engineer maintenance of way (center), and M. E. Kerns, superintendent maintenance equipment. Here's the story they told Associate Editor Rod Craib, emphasizing that the techniques shown were developed by the maintenance of way staff and resident field forces at Avon.**

2 **"The Spike-Puller Gang is the first step in getting the track ready. Spikes are pulled at the joints only, and lag spikes are left in. We work on track 4 while traffic moves on tracks 1 and 2.**

3 **"The Nut Runners come next. We have one working each rail. Behind them a man knocks bolts out."**

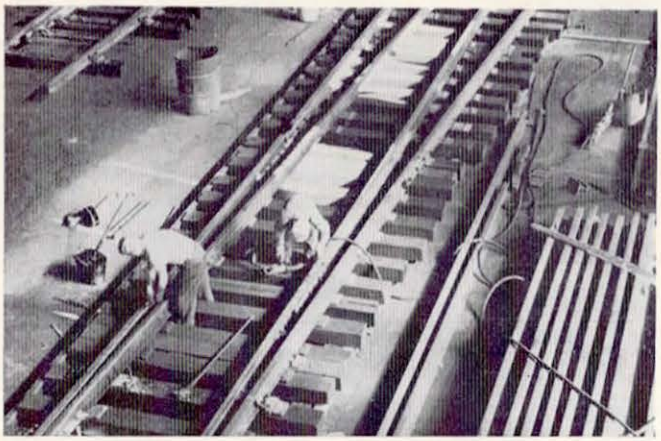
PREFAB TRACK CUTS YARD COSTS (*Continued from page 17*)

4 **"Squaring the joints** is just a matter of shoving the rails ahead, as many as nine at a time. The biggest problem was designing a shoe to guide the rail base through tie plates and spikes."

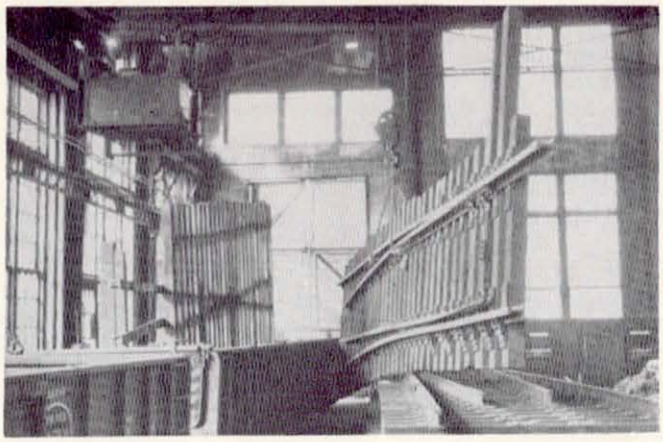
5 **"Winter work** means a few extra steps, like jacking the panels to break them loose from the frozen ground. Once free, we let them lie till we need them when they are picked up with a crane."

8 **"Unloading** is similar to loading. Tongs release automatically. The panels are good track. Picking them up automatically weeds out bad ties, which drop off and are burned."

9 **"Stockpiling** of panels, as here, is only temporary, to insure that winter weather will not halt the assembly-line flow. Most track stays on ground until loaded for shipment to the new yard."



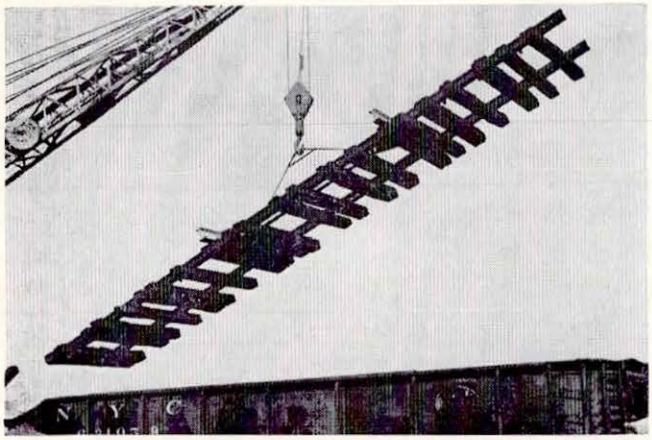
12 **"Prefabricated switches** at Beech Grove shops are put together from material reclaimed at Ashtabula. Rails are pre-cut and drilled for switches, which are turned out in a steady flow."



13 **"Completed switches** are loaded four pieces (two switches) to a car for shipment the 11 miles to Avon. As many as seven have been laid in a day; normal rate is 8 to 10 turnouts a week."

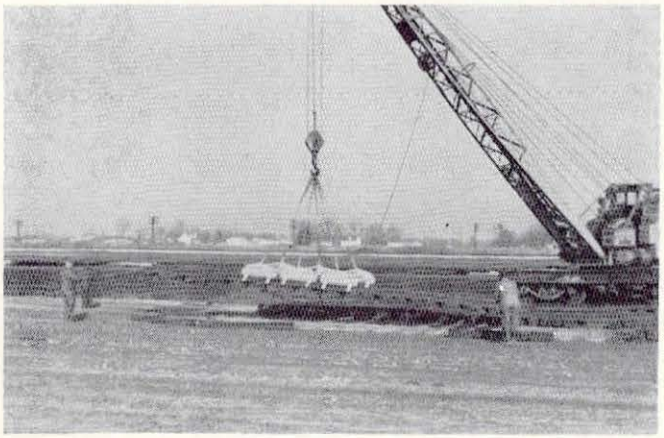
9 **"Panels are loaded** using off-track equipment here on the old West Shore between Syracuse and Buffalo, but on the main line, a work train with both an on-track and off-track crane is used."

7 **"Single track** coming up here from this West Shore track is moved by truck to a rail spur. The empty trailer moves on the highway; the 16-ton flat-bed load travels down the old right of way."

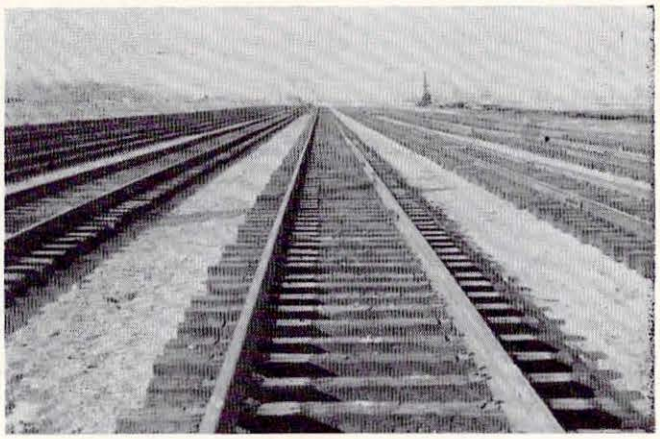


10 **"Panels move** in gondolas not suitable for revenue service and are handled as regular freight. Once we loaded panels on Friday at Syracuse, bolted them in at Avon Monday night."

11 **"Switch points** are welded back to serviceable condition at the SAR shop in Ashtabula, which also reclaims frogs, rail anchors, rail, etc. We use everything, somehow, sooner or later."



14 **"Trackwork** is laid by Central track gangs using new equipment such as tie spacers and tie holders. Maximum force so far has been 61 men, compared with about 300 for contracted yards."



15 **"Finished yard track** is completed three tracks at a time. Our speed here is determined by the grading contractor. We can easily keep ahead of the fastest grading we've gotten yet."

RAILROADS OUTSTANDING BY NEW END ARMATURE

New HYATT Pinion End Armature Bearings are now standard equipment on EMD Diesels and are being specified for replacement by more and more railroads.

REPORT PERFORMANCE HYATT PINION BEARING

Over a year ago, we announced a major improvement in the design of the original steel roller-riding cage which HYATT pioneered in 1953. Exhaustive tests indicated that this new self-locking cage bar construction provided the *most rugged pinion end armature bearing ever built.*

Thousands of these new bearings are now in regular service—and the reports of their outstanding performance fully confirm our own tests. They've proved beyond the shadow of a doubt that they can really take it and keep coming back for more punishment!

This All-Steel Roller-Riding Cage with Self-Locking Cage Bars Makes the Big Difference in Performance

Remember, only HYATT offers this new construction *plus* all the inherent advantages we introduced in the original roller-riding cage:

1. **Larger rollers for greater load capacity**
2. **No rubbing contact between cage and race flanges**
3. **Cage and rollers removable as a unit**
4. **Unrestricted lubricant flow to all parts**

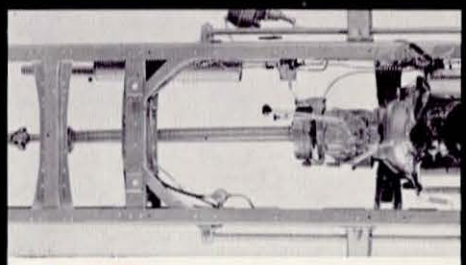
For the last word in traction motor bearings, specify HYATTS for your new locomotives and for replacement. *See if they don't out-perform anything you've ever used!* Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

Another GM GENERAL MOTORS contribution to railroad progress

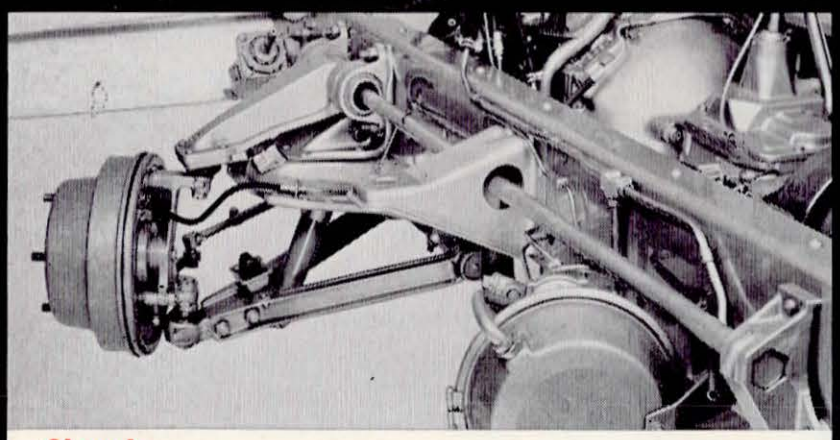
HYATT HY-ROLL BEARINGS FOR DIESEL LOCOMOTIVES

Chevy's major components for 1960 last up to four times longer than ordinary truck parts—exhaustive testing has proved it. Likewise, the totally new cabs have proved 67% more resistant to twisting; and new frames for many models are as much as 4.8 times stronger in torsional rigidity. These are typical 1960 Chevrolet truck facts and figures—and they point up a new kind of tough truck build that helps you hang on to your dollars!

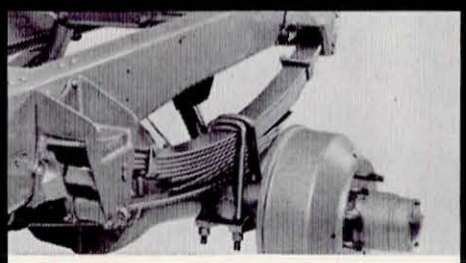
Chevy's precision-balanced wheels run smoother. Balancing weight shows that all front wheels are balanced in assembly—an advantage no other truck offers. It's assurance that Chevy handles easily; that tires will last longer without shimmy and shake from wheel imbalance.



Chevy's new frames are built with new brawn. Box-section rail design is stronger than ever; rail section modulus has been increased as much as 57%. Massive "K" or "X" brace crossmembers add to truck stamina; help keep you going years longer at least expense.



Chevy's new torsion-bar independent front suspension saves maintenance, increases work output. Independently suspended front wheels step right over bumps; tough torsion bar springs soak up shocks. As much as 58% of all objectionable road shock is absorbed before it reaches truck body, sheet metal or driver!



Chevy's easier riding rear springs help roll up profits. New variable-rate rear springs come in high capacities to handle huge payloads. Spring resistance adjusts automatically to cushion the load better.

CHEVROLET'S BIG NEW BUILD IS LIKE MONEY IN THE BANK FOR YOU!

Here are just a few of the *many* ways in which Chevrolet's totally new build for '60 will work to build a bigger bank account for you. They show that a '60 Chevy means *profit* through longer life, less maintenance, easier working, outsized cargoes and extra economy! You'll find, too, that 1960's savingest truck *power* is Chevrolet's: famous economy 6's and efficient short-stroke V8's for light-duty models . . . high-power, high-torque V8's and tough, dependable 6's for the bigger trucks. It'll profit you to see your Chevrolet dealer about Chevy's big new build, sometime soon. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

1960 CHEVROLET STURDI-BILT TRUCKS

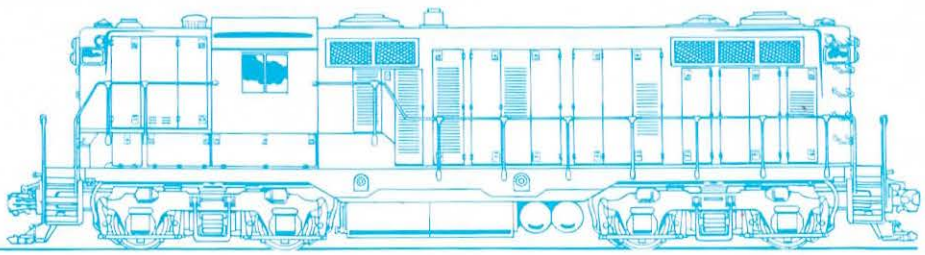
CHEVROLET

NEW 8000 HP GENERAL MOTORS (GP-20) LOCOMOTIVE FOR THE WESTERN PACIFIC

Recently, the Western Pacific celebrated its first half-century of service. Symbolizing the aggressive attitude of this "young" road is the delivery of the first new General Motors GP-20 locomotives. A four-unit, 8000 horsepower consist of the new units is pictured above on a Western Pacific freight run.

New 2000 hp GP-20 locomotive unit, one of six such units recently delivered to the Western Pacific Railroad, shown ready for shipment at Electro-Motive Division's La Grange, Ill. plant.

The GP-20 is nearly identical in size with past GP models. It measures 15′ high, 56′ long, coupler to coupler. Width is 10′.



Power is up, maintenance and fuel costs are down . . .

The GP-20:

a locomotive to revise all measurements of general purpose performance

The new GP-20 is a 2000 hp general purpose locomotive unit with four-wheel trucks. In appearance, it resembles past GP's but there the similarity ends. The increased capacity of its new prime mover, transmission and related systems has set new standards of performance.

For example:

Faster runs, more tonnage, greater versatility. The 2000 hp GP-20 has all the flexibility of predecessor GP's but with more capacity for heavy tonnage, high-speed freight service. In multi-unit consists, it will speed up present schedules, or handle more tonnage at established speeds. For many trains, the GP-20 will mean cost-saving unit elimination.

Lower fuel consumption. The new 567D-2 engine actually produces more power on a smaller diet than the famous "C" engine. The Electro-Motive designed Turbo-charger and new needle valve injector combine to reduce specific fuel consumption by as much as ten percent. The Turbo-charger is also responsible for maintaining rated engine power in higher altitude operation (up to 8000-foot altitude). With the GP-20, full-working power is maintained throughout a wide range of operating altitudes.

60% reduction in scheduled maintenance. More than thirty new maintenance reduction items are basic on the GP-20. Scheduled maintenance requirements have been lowered by 60 percent. In addition, the GP-20 contains material and design improvements in major components that measurably improve their durability and operating life.

Among the many improvements in the GP-20 is a new main generator with a 50 percent greater service life than previous generators, a new electro-magnetic control cabinet that completely eliminates scheduled maintenance, and a new high speed wheel slip control that protects traction motor components against damage from motor overspeed.

For specific details on the GP-20, contact your Electro-Motive representative.

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS · LA GRANGE, ILLINOIS
Home of the Diesel Locomotive
In Canada: General Motors Diesel Limited, London, Ontario

GENERAL MOTORS LOCOMOTIVES

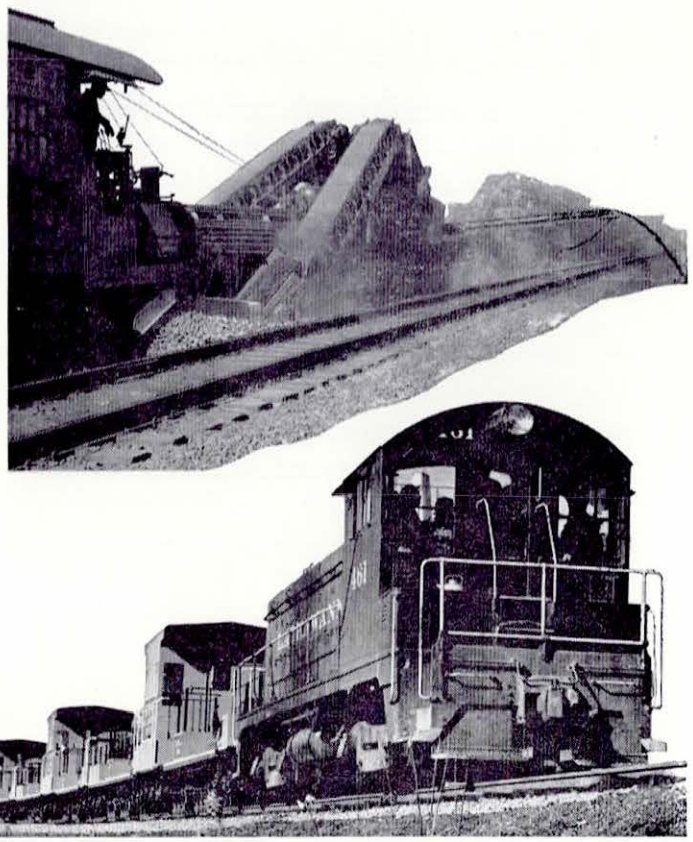
More power at less cost with General Motors great new line of locomotives—

1800 hp General Purpose GP-18 | 1800 hp Special Duty SD-18 | 2000 hp General Purpose GP-20 | 2400 hp Special Duty SD-24 | 1325 hp Road Switcher RS-1325

PROGRESS REPORT

SPENO

Here are the up-to-date facts on the SPENO Ballast Cleaning and the SPENO Rail Grinding Services.



BALLAST CLEANING

SPENO Engineering and Research has developed a superior screening arrangement so that we are now using an improved Ballast Cleaner with greater efficiency.

RAIL GRINDING

Our Rail Grinding Service has been so well received we are now building a *THIRD* Rail Grinding Train to take care of the increased demand.

SPENO is constantly developing means for better service to make sure that the Railroads receive everything they pay for — and more

Just Ask the Railroads That have used us!

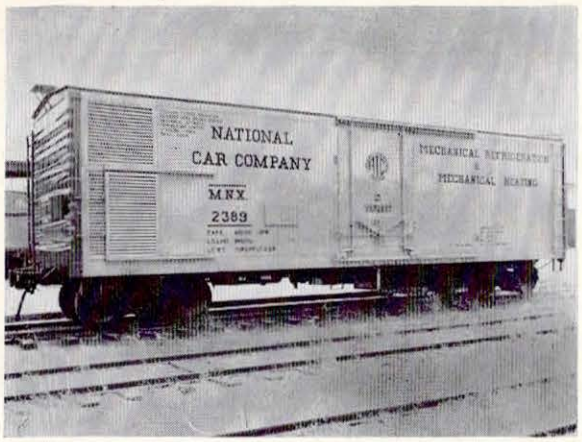
CLOSELY TO PROGRESS
P R I
MEMBER

FRANK SPENO RAILROAD BALLAST CLEANING CO., INC.

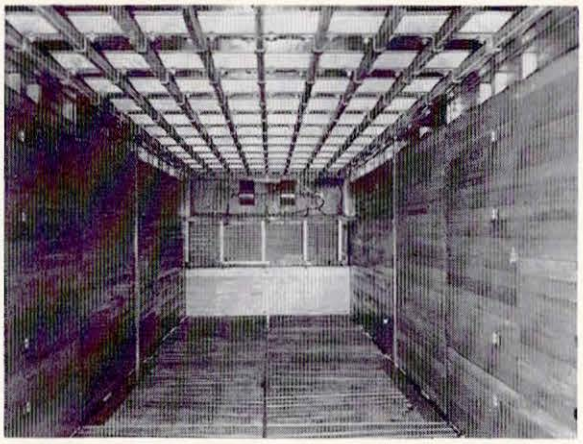
Clark Street
East Syracuse, N. Y.

306 North Cayuga St.
Ithaca, N. Y.

'Q' Tests New Car



CAR IS ARRANGED like standard mechanical reefer.



CIRCULATING FANS are driven by hydraulic motor.

This Reefer Costs Less to Run

Polyurethane foam insulation and elimination of the electrical transmission between diesel engine and the refrigeration compressor and air-circulating fans were aimed at operating cost reductions for National Car Company experimental mechanical refrigerator car MNX 2389. The conventional mechanical reefer has a diesel-engine-driven alternator which powers a-c motors driving the compressor and fans, along with supplying current to heating grids that are used for temperature control and automatic defrosting.

Absence of electrical losses in this car, combined with increased insulation effectiveness, were calculated to lower costs of operation. First costs were also reduced because costly electrical equipment is unnecessary. This mechanical reefer went into experimental service following its completion at the Burlington's Havelock, Neb., shop last year. It is one of 755 meat-rail cars operated for Burlington Refrigerator Express.

Elimination of electrical equipment is not easy. While the refrigeration compressor is mounted in the machinery compartment with the diesel engine and can be direct coupled, the air circulating fans are within the load space of the car where direct drive is not feasible. It is necessary to provide a source of heat for heating and defrost. Unlike conventional mechanical reefers, which can be placed on standby power in case of an engine failure, the engine on this car must operate with great dependability, because it is not possible to operate from standby.

The engine is a Mercedes-Benz four-cylinder, four-cycle diesel. Fuel consumption of the engine is low, and elimination of electrical losses aids fuel economy. The compressor, built by Sterling Refrigeration Engineering Co., is driven by a rubber-in-shear coupling. It is an 8-cylinder design. Condenser and radiator are combined in a coil mounted ahead of the engine. Water and refrigerant are cooled with the same air stream.

Air-circulating fans are hydraulically driven. The pump for this system is belt-driven from the engine. The hydraulic motor, located in the car, drives the two air-circulating fans directly. During periods of defrost, the motor is unloaded by a solenoid which stops the fans.

Heating and defrost are accomplished by means of a modified reverse cycle in which the hot gas from the compressor is directed to the coil inside the car. When heating is required, a change-over valve directs the discharge gas to the evaporator and isolates the condenser.

Cooling fins are spaced so that a frost build-up will not cause a fall-off in air circulation. The temperature control melts minor ice accumulations during each cycle. Insulation used in the car prevents moisture infiltration.

In the development of the polyurethane insulation, the moisture problem was a prime target. All insulations and installation procedures were studied. Early experiments used expanded polystyrene applied in an adhesive mastic which bonded the insulation to the structure and sealed the edges of the insulation. This proved to be an effective insulation, but installation costs proved excessive.

Early experiments with rigid polyurethane were based on a castor-oil type which could be foamed in place to seal the structure. Next step was the polyester based, carbon-dioxide-blown urethane foam. This ran 80 to 90% closed cells. Uniform foam could be produced. The foaming action of this material was caused by the generation of carbon dioxide gas during the initial chemical reaction. Fluorocarbons finally replaced carbon dioxide as blowing agents.

The entire interior of MNX 2389 was stripped in preparing for foamed insulation application. Holes were bored in the floor. Insulation was then pumped in to fill the space. It was forced up the sides of car between the new lining and the outside steel sheathing a distance of about 12 in. More of the material was pumped through holes in the roof into the sides and, finally, into the space between the ceiling and roof. Foaming causes the material to fill these spaces completely, and it adheres to steel and wood, sealing completely.

The car has the following insulation thicknesses: floors, 6-1/8 in.; 6-11/16 in.; ends, 6 in. and 6-7/16 in., and roof, 10-5/16 in. average. Tests have shown the car heat leakage to be 8,336 Btu/hr at 100 deg temperature differential. This compares approximately to 1,2000 Btu/hr for a car with more conventional insulation.

Letters from Readers

'Particularly Valuable'

New York City

To the Editor:

It is easy to receive particularly fine issues of Railway Age and not comment to you people about them.

It seems to me that your Jan. 18 issue, comprising a review of 1959 and a special report to management, is a particularly valuable job to the railroad industry. I commend your organization.

P. M Shoemaker
President
Lackawanna

'Excellent Coverage'

Seattle, Wash.

To the Editor:

We would like to congratulate you on your excellent publication, Railway Age. The articles contained in the magazine give excellent coverage of current events and happenings of interest to all railroaders.

Of particular excellence are the various charts and graphs included in the various issues. We were wondering if we could have your permission to reproduce some of these charts and graphs for use in our public relations work for the railroads in Washington State. Thank you for your consideration.

John M. Hurley
Executive Director
Washington Railroad Association

(We're always happy to see Railway Age material reproduced in the interests of the industry.—Editor.)

Jet-Age Snow Removers

New Providence, N. J.

To the Editor:

It is interesting to note that the article appearing on page 27 of the Dec. 14 issue of Railway Age, describing the New York Central's new use of an airplane jet engine for snow removal, bears a striking similarity to the article appearing in the March 15, 1947, issue describing the use of a jet engine by an English road for snow removal.

W. A. Cubbage

(The British Railways jet-engine snow remover pictured in the March 15, 1947, issue of Railway Age employed the same principle later utilized by the New York Central, but on a more modest scale. BR used the exhaust nozzle of an exposed jet engine to remove drifts blocking the tracks. Reportedly, it could clear heavy snow from 75 ft of track in 5 min. NYC's jet engine is housed in a modified caboose. Controlled from the caboose, the nozzle can be swung from side to side in a 60-deg arc, can blow snow and ice directly out from under railroad cars.—Editor.)

Electronic Computers

Chicago

To the Editor:

The officers and engineers of our client, International Railroads Weighing Corporation, were very impressed with your thoroughness in your special issue about computers (RA, Dec. 7). They mentioned that even though they have been working with computers in the development of their "Railweight" method of weighing freight cars individually while coupled in motion, they had learned a great deal in studying this issue.

Fred Joyce
Fred A. Joyce and Son
Public Relations

Rail vs. Air Fares

Kent, Ohio

To the Editor:

In Railway Age some time ago (Nov 24, 1958, p. 22) you compared costs of passenger service rail vs. airplane. The gist of the item was that it was cheaper via rail from Minneapolis to the West Coast.

On such comparisons as I have made in the past from my personal experience, I have found that, if all costs are considered (meals, hotels, etc.), it works out about the same, rail vs. air, on hauls for 400 miles, with the advantage via air being greater as you progress over that mileage.

I would think that *if* the cost of passenger service works out to the advantage of the railroads, they are missing a bet in not presenting the facts.

Newton Morton
Associate Professor of Transportation
Kent State University

'Tell the People'

Oklahoma City, Okla.

To the Editor:

I thought you would be interested to know that the St. Louis Globe-Democrat, in a recent Sunday issue (Feb. 7, 1960), reprinted your article, "Who would Carry the Load?" (RA, Dec. 14, 1959, p. 21).

S. P. Wilson

(Response to the Dec. 14 article, first in the "Tell the People" series, has been gratifying. The AAR is now circulating 50,000 reprints.—Editor.)

Editors Afield

JACKSONVILLE, FLA.

Importance of forest products traffic to southeastern railroads—and the increasing numbers and varieties of cars for handling this traffic—are quickly evident to travelers below the Mason-Dixon line.

The Seaboard has just started a program which will produce 200 high-capacity wood chip cars at Portsmouth, Va.; Central of Georgia has just completed 50 similar cars at Columbus, Ga. In the Jacksonville area, the towering 5,400-cu ft wood chip hoppers of the Atlantic Coast Line and the 6,900 cu-ft chip gondolas of the Southern are common. The Southern's Coster Shop in Knoxville, Tenn., is currently building more of the "super" gondolas. Specialized equipment is apparently making profitable the movement of an extremely low-rate commodity.

The same ingenuity which has produced chip cars and the ubiquitous pulpwood car has been turned to the movement of finished and semi-finished forest products on southeastern lines. The Southern has just put into service the first model of a special lumber car (RA, Feb. 22, p. 34). It is a closed car with "overhead-door" type side openings. The 50-ft car can be divided by movable bulkheads. Here is a car which permits unimpeded fork-lift loading and unloading while providing complete weatherproof protection for finished lumber at no cost to the shipper.

Permanent tie-down equipment and bulkheads make the difference between rail and truck movement for some ACL lumber shippers. The need to provide dunnage for rail hauls on conventional flat cars gave trucks an advantage which has been countered by providing specialized equipment. As with the Southern car, the special ACL cars are arranged to make possible utilization of the latest techniques in materials handling.

—F. N. Houser

STATION AGENT
JUSTICE of PEACE
MAYOR
BANK DIRECTOR
TELEGRAPH OPERATOR
PRES. SCHOOL BOARD
EXPRESS AGENT
PRES. CREAMERY ASSN
BAGGAGE MASTER
REAL ESTATE AGENT
LEADER BRASS BAND
MAIL CARRIER
NOTICE
DO NOT EXPECTORATE OR SPIT ON WALLS, CEILING, AGENTS OR OTHER IMPEDIMENTS. MEANS
CONDUCTOR
LICENSE
GOLD FISH
Route Agent
TRAV. AUDR.
Superintendent
TRAIN MASTER
OPPORTUNITY KNOCKS ONCE GRAB IT
TIME IS MONEY
DONT TAKE ANY WOODEN MONEY
NEVER DO TODAY WHAT YOU CAN PUT OFF TILL TO-MORROW
CORRESPONDENCE
KEEP YOUR SHIRT ON
OLD MOSS
NOTICE
A FINE OF ONE DOLLAR PER SACK WILL BE IMPOSED UPON EMPLOYEES FOR FAILURE TO PROMPTLY DISPATCH ALL MAIL AT ONE MAN STATIONS. THE AGENT WILL BE REQUIRED TO TRANSPORT THE MAIL BETWEEN THE STATION AND POST-OFFICE. IF MORE THAN TEN SACKS A HAND CART WILL BE SUPPLIED FOR THE PURPOSE.
ALL AGENTS:- SWEEP ALL COBWEBS AND HORNETS NESTS FROM WALLS OF OFFICE AND WAITING ROOM.
SOAP
FRAGILE DO NOT CRUSH
EXPENSE JOB
SECURITY BOOK
CDBeach 1930

Today—he could control the entire railroad—neatly

J. Pluto Bolivar earned $16.50 a week before he was fired for inefficiency—he had routed a carload of muskmelons to Fort Sill, Oklahoma, and a carload of howitzer shells to the Pleasantville Produce Yard.

Things have come a long way since that explosive afternoon in Pleasantville. Today, train movements on an entire railroad can be accurately and safely directed from *one* control center. And one company, Union Switch & Signal, can supply every bit of equipment to do the job.

Union Switch & Signal control systems cut down on wasted car time. CTC can save a minute a mile in schedule time. A Union Velac® Automatic Classification Yard System can cut terminal classification time in half. Users report that their investments have already returned 15% to 30% a year. Pays for itself in three to five years! Get complete facts from any Union Switch & Signal Representative. And if you appreciate railroad nostalgia like we do, write for an 11″ x 14″ print of this illustration suitable for framing.

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Freight Operating Statistics of Large Railroads—Selected Items

Region, Road and Year		Miles of road operated	Train miles	Locomotive Miles: Principal and helper	Locomotive Miles: Light	Car Miles: Loaded (thousands)	Car Miles: Per cent loaded	Ton-miles (thousands): Gross excl.locos & tenders	Ton-miles (thousands): Net rev. and non-rev	Road-locos. on lines: Serviceable: Unstored	Road-locos. on lines: Serviceable: Stored	Road-locos. on lines: B.O.	Road-locos. on lines: Per cent B.O.
New Eng. Region	Boston & Maine	1959	1,546	210,703	211,143	2,727	7,849	63.3	545,480	227,620	85	4	23	20.5
		1958	1,559	219,377	219,737	4,080	8,193	62.1	571,163	236,397	59	19	16	17.0
	N. Y., N. H. & Hfd.	1959	1,739	244,772	244,782	16,213	9,660	65.6	622,211	251,962	62	..	11	15.1
		1958	1,739	252,078	252,078	15,360	10,332	66.0	672,423	283,778	73	..	13	15.1
Great Lakes Region	Delaware & Hudson	1959	764	142,857	144,946	2,116	7,656	65.4	542,596	274,424	27	7	5	12.8
		1958	764	160,182	162,736	3,315	8,243	64.5	591,076	300,121	36	..	3	7.7
	Del., Lack. & Western	1959	941	221,120	226,188	11,362	9,775	66.2	661,975	276,647	54	1	8	12.7
		1958	922	247,572	251,210	9,079	10,507	65.0	712,789	298,187	60	..	4	6.3
	Erie	1959	2,233	537,361	540,290	13,957	30,459	68.7	1,885,185	713,645	165	6	4	2.3
		1958	2,207	544,636	546,823	12,572	30,859	68.9	1,927,269	754,323	170	3	1	.6
	Grand Trunk Western	1959	951	202,640	202,821	1,144	6,265	56.4	478,689	183,187	43	8	22	30.1
		1958	951	185,183	185,633	1,360	6,197	59.2	445,560	177,289	40	16	17	23.3
	Lehigh Valley	1959	1,114	186,448	188,570	4,485	8,245	66.9	554,495	252,481	28	..	6	17.6
		1958	1,118	198,412	201,345	3,969	8,783	63.9	615,444	279,189	28	..	6	17.6
	New York Central	1959	10,333	1,907,479	1,917,966	72,388	84,501	59.3	6,501,220	2,758,603	406	..	64	13.6
		1958	10,447	2,027,847	2,039,652	73,737	85,613	59.0	6,404,685	2,916,100	434	5	39	8.2
	New York, Chic. & St. L.	1959	2,155	528,049	528,049	4,036	25,591	64.9	1,797,174	770,087	101	31	8	5.7
		1958	2,155	582,689	582,689	4,407	27,040	64.4	1,954,507	878,207	101	31	4	2.9
	Pitts. & Lake Erie	1959	221	24,152	24,152	....	1,082	57.0	103,619	57,855	7	11	4	18.2
		1958	221	54,901	54,901	....	2,218	64.8	205,006	129,672	14	1	..	..
	Wabash	1959	2,379	424,684	425,018	4,079	21,094	64.9	1,438,458	582,006	114	..	3	2.6
		1958	2,379	514,991	515,507	4,201	22,812	67.0	1,553,450	660,707	114	..	..	..
Central Eastern Region	Baltimore & Ohio	1959	5,802	1,262,583	1,348,846	86,624	56,893	61.7	4,285,723	2,044,152	381	44	29	6.4
		1958	5,830	1,303,790	1,400,169	88,401	66,327	64.9	4,602,543	2,257,350	412	93	20	3.8
	Bessemer & Lake Erie	1959	203	18,743	18,548	4	396	52.5	42,442	23,142	9	4	..	..
		1958	203	50,629	51,039	56	2,364	71.3	251,888	167,772	12	1	..	..
	Central RR Co. of New Jersey	1959	597	108,192	109,455	5,681	4,105	66.4	314,392	168,835	67	2	2	2.8
		1958	600	111,678	113,070	5,970	4,291	65.3	327,650	174,187	68	..	5	6.8
	Chicago & Eastern Ill.	1959	863	110,961	110,961	2,107	5,210	62.9	411,296	207,249	26	..	6	18.8
		1958	863	132,876	132,876	2,699	5,566	62.0	436,102	217,607	29	..	4	12.1
	Elgin, Joliet & Eastern	1959	205	35,126	35,957	....	1,081	62.2	86,335	45,694	31	12	..	..
		1958	236	58,828	59,127	....	2,192	61.8	181,719	98,883	38	5	1	2.3
	Pennsylvania System	1959	9,865	2,370,662	2,471,327	144,271	106,711	64.7	7,618,581	3,431,393	623	30	86	11.6
		1958	9,885	2,681,786	2,823,495	181,520	117,342	64.9	8,713,455	4,167,635	692	50	131	15.0
	Reading	1959	1,302	247,835	248,543	8,592	10,228	62.3	858,982	456,622	139	9	21	12.4
		1958	1,302	285,699	286,951	9,827	10,894	59.8	919,195	480,491	140	12	40	20.8
	Western Maryland	1959	844	106,631	109,187	4,840	4,371	62.5	370,963	199,001	30	3	1	2.9
		1958	844	151,103	157,366	8,979	6,429	62.1	568,221	327,569	42	2	1	2.2
Pocahontas Region	Chesapeake & Ohio	1959	5,060	1,095,620	1,097,735	19,804	52,841	56.3	4,653,958	2,578,001	565	20	52	8.2
		1958	5,066	1,236,404	1,240,013	23,155	59,695	55.1	5,377,751	3,017,303	595	..	12	2.0
	Norfolk & Western	1959	2,116	541,993	559,892	28,492	28,625	56.6	2,765,239	1,502,206	142	13	11	6.6
		1958	2,116	635,854	672,385	45,256	33,701	56.8	3,223,484	1,765,294	194	12	7	3.3
	Rich., Fred. & Potomac	1959	110	35,093	35,093	625	2,380	69.0	154,751	65,836	13	2	..	..
		1958	110	31,197	31,197	636	2,189	65.0	144,867	58,269	11	4	..	..
	Virginian	1959	608	135,220	137,446	3,468	7,027	53.9	676,989	383,226	50	16	15	18.5
		1958	608	146,068	148,453	3,625	7,544	53.4	736,373	412,792	53	13	12	15.4
Southern Region	Atlantic Coast Line	1959	5,258	648,939	648,939	6,651	24,303	58.0	1,891,684	865,064	117	..	2	1.7
		1958	5,296	632,846	632,846	6,494	23,776	57.2	1,872,809	855,805	133	7	1	.7
	Central of Georgia	1959	1,712	191,277	191,277	2,190	7,804	64.6	588,582	286,035	33	..	2	5.7
		1958	1,730	193,534	193,534	2,519	7,699	64.2	592,132	286,133	35	..	2	5.4
	Florida East Coast	1959	572	86,722	86,722	....	3,118	53.2	244,269	86,306	51	..	3	5.5
		1958	571	95,517	95,517	....	3,308	51.2	269,191	98,985	49	..	5	9.3
	Gulf, Mobile & Ohio	1959	2,717	266,747	266,747	34	15,165	68.2	1,075,027	530,232	87	..	4	4.4
		1958	2,717	270,779	270,779	58	16,084	67.8	1,160,159	578,595	86	..	5	5.5
	Illinois Central	1959	6,500	1,031,080	1,031,080	28,013	49,155	62.6	3,631,701	1,716,490	186	9	181	48.1
		1958	6,497	1,079,093	1,079,093	30,199	49,407	62.2	3,704,246	1,767,554	199	41	151	38.6
	Louisville & Nashville	1959	5,679	914,202	914,880	14,716	36,582	61.5	2,876,425	1,430,327	161	..	4	2.4
		1958	5,680	940,114	941,265	18,167	38,569	60.0	3,056,352	1,529,014	157	..	3	1.9
	Seaboard Air Line	1959	4,135	599,472	599,472	2,664	24,226	59.0	1,901,511	890,818	125	..	4	3.1
		1958	4,135	599,748	599,748	966	23,449	59.3	1,831,876	852,382	145	..	6	4.0
	Southern	1959	6,243	875,723	875,909	9,292	42,346	65.7	2,885,408	1,349,005	197	3	4	2.0
		1958	6,249	862,973	863,153	9,861	41,019	66.1	2,807,263	1,327,960	196	1	16	7.5
Northwestern Region	Chicago & North Western	1959	9,244	900,268	900,268	9,272	34,038	61.9	2,447,488	1,085,248	172	6	20	10.1
		1958	9,254	938,151	938,244	9,520	41,662	60.9	2,687,166	1,249,860	167	..	11	6.2
	Chicago Great Western	1959	1,437	140,214	140,214	193	7,309	67.3	511,512	239,861	23	..	4	14.8
		1958	1,437	138,485	138,485	169	7,856	67.4	547,162	253,491	26	..	..	..
	Chic., Milw., St. P. & Pac.	1959	10,591	865,303	873,022	12,430	42,551	66.1	2,842,389	1,266,907	322	16	9	2.6
		1958	10,583	937,755	951,841	13,888	44,799	63.9	3,088,978	1,379,809	291	7	8	2.6
	Duluth, Missabe & Iron Range	1959	556	28,086	28,093	65	662	51.9	63,615	36,170	52	30	1	1.2
		1958	554	84,709	84,960	557	4,373	51.6	482,433	294,170	76	23	2	2.0
	Great Northern	1959	8,279	955,742	957,613	19,930	41,512	66.8	2,894,563	1,310,038	271	..	13	4.6
		1958	8,281	1,047,011	1,051,163	25,970	47,586	65.5	3,475,931	1,664,046	265	..	5	1.9
	Minneap., St. P. & S. Ste. Marie	1959	4,169	358,928	360,050	531	12,978	68.0	840,541	400,946	90	7	4	4.0
		1958	4,169	389,761	391,241	1,707	14,686	67.8	984,636	461,908	84	8	4	4.2
	Northern Pacific	1959	6,538	779,026	784,305	10,841	34,585	70.8	2,254,458	1,034,008	238	..	7	2.9
		1958	6,533	786,342	793,407	10,439	36,243	70.8	2,393,318	1,115,582	237	4	4	1.6
	Spokane, Portland & Seattle	1959	935	144,627	144,627	1,060	6,318	74.5	409,842	193,939	53	..	..	..
		1958	935	148,586	148,586	1,329	6,706	75.3	409,880	183,095	55	..	2	3.5
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1959	12,992	2,734,957	2,893,290	57,572	122,468	64.8	8,541,810	3,283,271	634	..	40	5.9
		1958	13,086	2,498,460	2,663,745	61,875	119,570	64.5	8,324,818	3,255,030	577	6	113	16.2
	Chic., Burl. & Quincy	1959	8,647	1,170,002	1,167,484	29,248	51,236	64.8	3,453,171	1,464,114	150	5	75	32.6
		1958	8,676	1,204,957	1,200,496	31,143	54,779	66.4	3,657,426	1,596,856	150	10	70	30.4
	Chic., Rock I. & Pac.	1959	7,508	905,161	903,881	1,446	37,219	63.4	2,646,413	1,113,315	186	..	8	4.1
		1958	7,548	943,988	940,437	3,459	38,313	64.9	2,743,191	1,218,302	173	..	12	6.5
	Denver & R. G. Wn.	1959	2,128	287,348	304,745	27,897	14,231	73.1	936,011	438,821	84	5	8	8.2
		1958	2,155	349,951	374,393	40,388	16,940	73.8	1,155,676	566,845	86	5	5	5.2
	Southern Pacific	1959	8,011	2,276,726	2,364,671	132,973	103,200	64.6	7,110,008	2,946,097	748	1	21	2.7
		1958	8,025	2,176,825	2,258,247	125,766	100,580	65.4	6,883,103	2,867,873	641	4	48	6.9
	Union Pacific	1959	9,743	2,295,249	2,318,442	53,309	112,725	65.2	7,379,753	2,932,790	366	25	86	18.0
		1958	9,748	2,461,581	2,507,833	76,701	116,898	65.9	7,819,291	3,260,036	396	15	98	19.3
	Western Pacific	1959	1,188	285,095	290,737	12,144	12,075	71.6	756,145	325,994	46	..	1	2.1
		1958	1,189	274,425	281,603	16,281	12,280	70.7	792,713	350,956	45	..	2	4.3
Southwestern Region	Kansas City Southern	1959	886	119,176	119,182	42	7,777	65.0	575,348	260,551	22	..	2	8.3
		1958	886	131,514	131,520	62	8,286	67.7	607,215	285,333	22	..	1	4.3
	Louisiana & Arkansas	1959	746	79,892	79,892	....	3,819	64.9	297,132	141,558	20	..	..	..
		1958	746	74,875	74,875	108	4,141	65.1	321,195	153,169	18	..	..	..
	Mo.-Kans.-Texas Lines	1959	2,916	208,469	208,469	2,002	9,662	64.4	701,076	314,626	53	..	6	10.2
		1958	2,915	228,741	228,741	2,071	11,807	65.1	812,093	365,307	75	..	3	3.8
	Missouri Pacific	1959	9,428	1,137,028	1,137,028	8,450	52,671	64.1	3,838,625	1,754,926	221	3	13	5.5
		1958	9,515	1,158,960	1,158,960	8,903	55,260	63.4	4,010,399	1,860,981	224	20	14	5.4
	St. Louis-San Francisco	1959	4,527	610,218	610,218	8,265	26,581	69.0	1,757,786	816,027	96	..	13	11.9
		1958	4,541	606,749	606,749	5,765	25,714	67.8	1,765,843	838,772	99	..	11	10.0
	St. Louis Southw. Lines	1959	1,554	338,809	338,809	4,289	15,215	73.9	910,111	406,832	53	..	1	1.9
		1958	1,554	311,348	311,426	1,559	14,792	73.3	934,446	417,711	52	..	1	1.9
	Texas & New Orleans	1959	4,143	619,204	619,204	68	28,378	68.6	1,931,326	906,840	139	..	2	1.4
		1958	4,206	617,923	617,923	446	27,837	66.8	1,927,574	894,767	136	..	2	1.4
	Texas & Pacific	1959	1,822	292,343	292,343	2,790	12,776	65.4	905,655	353,645	38	..	2	5.0
		1958	1,822	267,133	267,133	2,396	13,403	65.0	952,843	376,677	37	..	2	5.1

For the Month of October 1959 Compared with October 1958

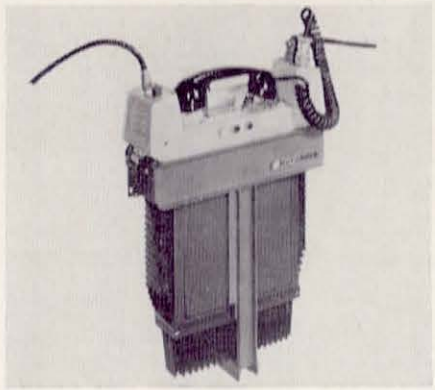
Region, Road and Year	Freight cars on line: Home	Foreign	Total	Per Cent B.O.	G.t.m.per train-hr. exc.locos and tenders	G.t.m.per train-mi. excl.locos and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-me.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region													
Boston & Maine 1959	1,966	7,957	9,923	3.5	38,943	2,595	1,083	29.0	752	41.0	4,749	15.0	71.0
1958	2,209	7,117	9,326	4.1	40,996	2,610	1,080	28.9	786	43.8	4,891	15.7	85.9
N. Y., N. H. & Htfd 1959	3,315	12,986	16,301	7.6	38,219	2,542	1,029	26.1	499	29.2	4,674	15.0	138.6
1958	2,629	12,231	14,860	4.5	41,069	2,668	1,126	27.5	605	33.3	5,264	15.4	119.4
Great Lakes Region													
Delaware & Hudson 1959	4,098	4,978	9,076	9.3	64,587	3,814	1,929	35.8	1,034	44.1	11,587	17·0	134.9
1958	4,162	5,993	10,155	9.1	65,255	3,710	1,884	36.4	965	41.1	12,672	17.7	144.1
Del., Lack. & Western 1959	5,347	7,793	13,140	13.6	52,484	3,034	1,268	28.3	658	35.1	9,484	17.5	135.1
1958	5,677	8,563	14,240	10.9	52,585	2,913	1,218	28.4	672	36.5	10,433	18.3	145.9
Erie 1959	12,033	13,477	25,510	8.2	74,711	3,536	1,338	23.4	909	56.5	10,309	21.3	112.6
1958	10,379	15,148	25,527	6.7	73,504	3,568	1,397	24.4	970	57.6	11,025	20.8	116.2
Grand Trunk Western 1959	5,242	7,168	12,410	6.3	53,961	2,370	907	29.2	478	29.0	6,214	22.8	96.0
1958	4,960	6,945	11,905	6.3	53,721	2,418	962	28.6	467	27.6	6,014	22.3	92.5
Lehigh Valley 1959	6,839	7,228	14,067	13.9	62,711	2,994	1,363	30.6	588	28.7	7,311	21.1	202.3
1958	6,940	8,487	15,427	10.0	62,711	3,138	1,424	31.8	578	28.4	8,056	20.2	218.4
New York Central 1959	62,914	73,292	136,206	8.5	59,216	3,437	1,459	32.6	659	34.1	8,612	17.4	154.0
1958	64,192	71,931	136,123	9.0	54,872	3,192	1,454	34.1	686	34.1	9,004	17.4	160.9
New York, Chic. & St. L. 1959	11,533	12,278	23,811	14.8	59,695	3,450	1,478	30.1	1,068	54.6	11,527	17.5	138.8
1958	10,593	13,816	24,409	13.3	59,049	3,398	1,527	32.5	1,215	58.0	13,146	17.6	157.3
Pitts. & Lake Erie 1959	8,764	1,886	10,560	5.8	76,303	4,339	2,423	53.5	169	5.5	8,445	17.8	36.5
1958	7,141	3,703	10,844	8.6	64,245	3,743	2,368	58.5	359	9.5	18,927	17.2	118.6
Wabash 1959	10,053	6,535	16,588	11.9	74,811	3,399	1,375	27.6	1,127	63.0	7,892	22.1	125.1
1958	10,583	8,778	19,361	6.4	62,768	3,024	1,286	29.0	1,099	56.6	8,959	20.8	156.5
Central Eastern Region													
Baltimore & Ohio 1959	65,961	34,562	100,523	20.0	54,961	3,446	1,644	35.9	659	29.7	11,365	16.2	105.7
1958	58,449	40,882	99,331	17.0	54,986	3,579	1,755	34.0	720	32.6	12,490	15.6	95.9
Bessemer & Lake Erie 1959	7,820	771	8,591	4.3	34,200	2,380	1,298	58.4	83	2.7	3,677	15.1	52.5
1958	4,148	1,655	5,803	7.8	84,215	5,444	3,626	71.0	945	18.7	26,660	16.9	141.5
Central RR Co. of New Jersey 1959	4,113	10,282	14,395	18.2	41,619	3,025	1,624	41.1	389	14.3	9,123	14.3	75.1
1958	3,595	8,254	11,849	17.6	42,294	3,065	1,629	40.6	448	16.9	9,365	14.4	77.5
Chicago & Eastern Ill 1959	3,405	2,815	6,220	20.0	65,639	3,731	1,880	39.8	1,073	42.9	7,747	17.7	123.2
1958	2,750	3,015	5,765	7.8	58,420	3,302	1,647	39.1	1,101	45.4	8,134	17.8	143.8
Elgin, Joliet & Eastern 1959	8,679	2,646	11,325	5.1	21,223	2,517	1,332	42.3	130	4.9	7,190	8.6	36.7
1958	7,396	6,267	13,663	4.8	22,349	3,204	1,744	45.1	234	8.4	13,516	7.2	60.6
Pennsylvania System 1959	113,830	82,990	196,820	15.6	57,365	3,304	1,488	32.2	566	27.2	11,220	17.9	125.3
1958	127,650	71,487	199,137	19.7	55,970	3,345	1,600	35.5	676	29.4	13,600	17.2	122.1
Reading 1959	19,241	14,043	33,284	22.3	53,393	3,466	1,842	44.6	457	16.4	11,313	15.4	62.1
1958	16,810	18,896	35,706	18.5	48,280	3,217	1,682	44.1	437	16.6	11,905	15.0	60.3
Western Maryland 1959	7,254	2,616	9,870	7.0	50,485	3,528	1,893	45.5	648	22.8	7,606	14.5	122.9
1958	6,710	3,258	9,968	3.2	55,280	3,836	2,211	51.0	1,080	34.1	12,520	14.7	132.1
Pocahontas Region													
Chesapeake & Ohio 1959	60,416	29,045	89,461	6.4	75,785	4,270	2,365	48.8	928	33.8	16,345	17.8	61.7
1958	61,297	31,561	92,858	4.9	80,259	4,374	2,454	50.4	1,059	38.0	19,213	18.5	72.6
Norfolk & Western 1959	39,522	10,007	49,529	4.2	91,519	5,175	2,811	52.5	954	32.1	22,901	17.9	123.4
1958	39,259	9,954	49,213	3.9	88,448	5,195	2,845	52.4	1,178	39.5	26,912	17.4	117.8
Rich., Fred. & Potomac 1959	111	1,011	1,122	1.7	94,765	4,420	1,880	27.7	1,966	103.0	19,307	21.5	81.6
1958	108	962	1,070	3.3	91,746	4,652	1,871	26.6	1,799	103.9	17,088	19.8	72.8
Virginian 1959	11,043	1,251	12,294	2.9	77,406	5,088	2,880	54.5	950	32.3	20,332	15.5	62.7
1958	12,642	1,348	13,990	3.3	74,127	5,128	2,874	54.7	940	32.2	21,901	14.7	71.2
Southern Region													
Atlantic Coast Line 1959	18,368	15,876	34,244	4.9	49,691	2,924	1,337	35.6	798	38.6	5,307	17.0	201.8
1958	20,067	15,867	35,934	3.2	50,622	2,966	1,355	36.0	793	38.5	5,213	17.1	174.8
Central of Georgia 1959	3,249	5,613	8,862	3.8	53,270	3,083	1,498	36.7	1,019	43.0	5,390	17.3	198.0
1958	3,602	5,997	9,599	3.7	52,916	3,062	1,480	37.2	986	41.3	5,335	17.3	193.6
Florida East Coast 1959	613	3,210	3,823	.6	47,737	2,817	995	27.7	769	52.2	4,867	16.9	56.5
1958	848	3,721	4,569	.9	46,686	2,825	1,039	29.9	762	49.8	5,592	16.6	63.2
Gulf, Mobile & Ohio 1959	6,552	10,926	17,478	5.3	75,877	4,032	1,989	35.0	1,006	42.2	6,295	18.8	103.6
1958	6,237	9,483	15,720	5.8	77,406	4,289	2,139	36.0	1,195	49.0	6·869	18.1	105.3
Illinois Central 1959	24,625	28,273	52,898	3.9	59,400	3,545	1,675	34.9	1,052	48.1	8,519	16.9	100.7
1958	26,012	28,819	54,831	3.3	56,504	3,463	1,652	35.8	1,080	48.5	8,776	16.5	101.4
Louisville & Nashville 1959	34,811	18,206	53,017	10.4	55,158	3,158	1,571	39.1	893	37.1	8,125	17.5	194.4
1958	31,210	18,802	50,012	7.3	53,714	3,258	1,630	39.6	986	41.4	8,684	16.5	215.5
Seaboard Air Line 1959	16,720	13,851	30,571	3.3	58,589	3,226	1,511	36.8	944	43.5	6,949	18.5	176.2
1958	17,041	12,508	29,549	3.0	57,554	3,102	1,443	36.4	920	42.7	6,650	18.8	150.2
Southern 1959	20,114	28,605	48,719	3.9	57,577	3,303	1,544	31.9	894	42.8	6,970	17.5	156.1
1958	17,463	28,168	45,631	5.2	54,544	3,270	1,547	32.4	925	43.2	6,855	16.8	153.5
Northwestern Region													
Chicago & North Western 1959	21,091	31,460	52,551	4.8	49,533	2,726	1,209	31.9	690	35.0	3,787	18.2	168.0
1958	20,914	27,689	48,603	4.5	51,961	2,883	1,341	30.0	791	43.3	4,357	18.1	185.9
Chicago Great Western 1959	2,267	4,283	6,550	3.5	68,156	3,655	1,714	32.8	1,214	55.0	5,384	18.7	181.4
1958	1,888	3,722	5,610	4.1	72,790	3,959	1,834	32.3	1,440	66.2	5,690	18.4	184.5
Chic., Milw., St. P. & Pac 1959	27,091	24,502	51,593	4.4	65,772	3,295	1,469	29.8	779	39.6	3,859	20.0	90.1
1958	32,276	27,877	60,153	4.9	61,849	3,301	1,474	30.8	746	37.9	4,206	18.8	111.9
Duluth, Missabe & Iron Range 1959	12,696	334	13,030	1.3	43,129	2,381	1,354	54.6	86	3.0	2,099	19.0	13.5
1958	14,434	686	15,120	4.5	100,696	6,203	3,783	67.3	647	18.6	17,129	17.7	32.0
Great Northern 1959	22,995	18,731	41,726	2.1	63,200	3,054	1,382	31.6	984	46.6	5,104	20.9	120.3
1958	21,052	23,975	45,027	2.5	62,938	3,372	1,614	35.0	1,147	50.1	6,482	19.0	139.1
Minneap., St. P. & S. Ste. Marie 1959	7,278	6,217	13,495	6.1	47,282	2,348	1,120	30.9	978	46.6	3,102	20.2	126.6
1958	6,311	7,036	13,347	5.6	53,647	2,540	1,191	31.5	1,074	50.4	3,574	21.2	145.6
Northern Pacific 1959	18,305	14,586	32,891	2.7	59,910	2,897	1,329	29.9	983	46.5	5,102	20.7	113.1
1958	17,108	16,072	33,180	3.0	61,805	3,046	1,420	30.8	1,023	46.9	5,508	20.3	115.1
Spokane, Portland & Seattle 1959	1,566	3,716	5,282	2.9	40,728	2,846	1,347	30.7	1,063	46.5	6,691	14.6	98.9
1958	1,378	4,683	6,061	1.9	41,583	2,772	1,238	27.3	959	46.6	6,317	15.1	95.3
Central Western Region													
Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.) 1959	51,593	39,612	91,205	3.3	75,810	3,131	1,204	26.8	1,184	68.2	8,152	24.3	150.7
1958	47,783	39,252	87,035	6.7	74,396	3,339	1,306	27.2	1,178	67.1	8,024	22.3	137.3
Chic., Burl. & Quincy 1959	21,735	20,649	42,384	3.5	62,196	2,962	1,256	28.6	1,123	60.7	5,462	21.1	181.7
1958	21,051	27,497	48,548	3.4	61,419	3,041	1,328	29.2	1,083	56.0	5,937	20.2	196.9
Chic., Rock I. & Pac 1959	15,808	22,030	37,838	5.0	60,833	2,931	1,233	29.9	961	50.7	4,783	20.8	162.3
1958	14,603	25,750	40,353	4.7	58,643	2,915	1,295	31.8	980	47.5	5,207	20.2	179.0
Denver & R. G. Wn 1959	7,741	6,465	14,206	6.1	65,953	3,263	1,530	30.8	983	43.6	6,652	20.2	123.2
1958	7,632	7,718	15,350	4.2	62,873	3,310	1,623	33.5	1,192	48.3	8,485	19.0	151.0
Southern Pacific 1959	32,548	43,901	76,449	1.9	67,634	3,156	1,308	28.5	1,251	67.8	11,863	21.7	114.2
1958	33,222	40,703	73,925	1.9	63,648	3,195	1,331	28.5	1,201	64.4	11,528	20.1	120.8
Union Pacific 1959	32,550	32,559	65,109	1.7	86,626	3,237	1,287	26.0	1,426	84.0	9,710	26.9	167.1
1958	29,282	35,029	64,311	1.6	81,728	3,198	1,334	27.9	1,599	86.9	10,788	25.7	171.6
Western Pacific 1959	2,597	3,097	5,694	3.2	74,992	2,669	1,151	27.0	1,874	96.9	8,852	28.3	214.2
1958	2,296	3,644	5,940	2.6	77,641	2,903	1,288	28.6	1,862	92.2	9,522	26.9	213.4
Southwestern Region													
Kansas City Southern 1959	2,389	5,367	7,756	5.6	99,541	4,835	2,189	33.5	1,074	49.4	9,486	20.6	196.4
1958	2,755	4,713	7,468	5.7	96,246	4,636	2,179	34.4	1,246	53.5	10,389	20.8	208.7
Louisiana & Arkansas 1959	2,094	3,087	5,181	6.4	75,664	3,747	1,785	37.1	877	36.5	6,121	20.3	163.0
1958	2,227	2,860	5,087	8.2	81,604	4,303	2,052	37.0	982	40.8	6,623	19.0	164.1
Mo.-Kans.-Texas Lines 1959	4,494	6,261	10,755	10.5	53,867	3,373	1,514	32.6	932	44.4	3,481	16.0	125.5
1958	4,645	8,131	12,776	9.6	58,160	3,560	1,602	30.9	918	45.6	4,043	16.4	104.0
Missouri Pacific 1959	22,838	29,897	52,735	6.0	67,213	3,388	1,549	33.3	1,103	51.7	6,005	19.9	170.9
1958	21,149	28,078	49,227	8.1	66,755	3,477	1,613	33.7	1,234	57.8	6,309	19.3	166.3
St. Louis-San Francisco 1959	10,674	13,168	23,842	1.7	56,372	2,896	1,345	30.7	1,152	54.3	5,815	19.6	201.3
1958	10,964	13,006	23,970	2.0	55,842	2,922	1,388	32.6	1,164	52.6	5,958	19.2	199.6
St. Louis Southw. Lines 1959	2,528	4,619	7,147	1.9	61,077	2,691	1,203	26.7	1,980	100.2	8,445	22.7	221.0
1958	2,543	5,206	7,749	2.6	61,400	3,005	1,343	28.2	1,810	87.4	8,671	20.5	203.6
Texas & New Orleans 1959	5,892	13,855	19,747	2.3	74,196	3,136	1,472	32.0	1,444	65.9	7,061	23.8	150.0
1958	5,796	15,103	20,899	1.6	69,522	3,137	1,456	32.1	1,364	63.5	6,862	22.3	152.9
Texas & Pacific 1959	3,363	5,660	9,023	3.9	71,043	3,122	1,219	27.7	1,234	68.2	6,261	22.9	255.7
1958	3,158	6,163	9,321	4.0	75,270	3,586	1,417	28.1	1,309	71.6	6,669	21.1	243.1

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

New Products Report

Printing Reperforator

The Olivetti T2PN printing reperforator produces a printed message on a standard 11/16 in. punched tape fully compatible with electronic and optical readers and integrated data processing systems. The unit is also a self-contained teletypewriter with a keyboard for direct operation. It is about the same size and weight as an electric typewriter and is available for 60 or 75 wpm operation. *TELautograph Corp., Dept. RA, 8700 Bellanca Ave., Los Angeles 45, Calif.*



M/W Radio

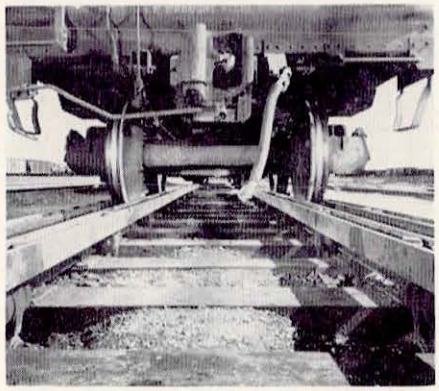
A self-contained version of the transistorized Motrac two way radio has been developed for use in M/W vehicles. The single unit includes transmitter, receiver, handset, controls, and two 5-watt speakers. The unit operates from 12 volts dc in the 152-174 mc band and provides 25 watts RF output. It can be installed in a "T-frame" bracket which mounts by three bolts on a vertical surface. *Motorola Inc., Dept. RA, 4501 W. Augusta Blvd., Chicago 51.*

Portable Megaphone

The Megavox model MV-5 is an all transistorized portable megaphone that can be heard 600 yards away. The 6-lb, 11 by 16 in. aluminum unit has a baked enamel finish, volume control, trigger on-off switch, a microphone jack for use as a PA system, and a waterproof microphone. It operates up to four hours on its three self-contained 4.5 volt batteries and requires no warm up. *Fanon Electronic Industries, Inc., Dept. RA, 98 Berriman St., Brooklyn, N. Y.*

Portable PA System

The PRC-2425 is a 13-lb, 25-watt portable megaphone, public address system and talk-back device. The transistorized amplifier is powered by four lantern batteries. A hand-held dynamic microphone is included. The frequency response is ±3 db 400 to 5000 cps and the input phono jack is 20K ohms. With the function switch on "listen," it is a sensitive directional listening device. *Lawrence Inc., Dept. RA, P.O. Box 5106, Detroit 35, Mich.*



Spring-Type Car Retarder

To stop running cars at the ends of classification tracks, the Racor Mechanical Car Retarder replaces skates tended by skatemen. Usually supplied in 39-ft lengths, each retarder unit consists of one running rail and two retarder rails connected by powerful spring assemblies. When a car enters a unit, the retarder rails are forced apart and exert a braking effect on the wheels. *American Brake Shoe Co., Dept. RA, 155 N. Wacker Drive, Chicago 6.*

Freon–Sonic Energy Cleaning

This cleaning system combines the use of sonic energy with Freon as the solvent. It may be used for cleaning parts or assemblies where contact with water or the residual film characteristic of chlorinated solvents is undesirable. Drying occurs almost instantaneously. The system is housed in a stainless steel cabinet and is available with cleaning chambers 9 by 14, 14 by 20, or 18 by 25 in. *Bendix Aviation Corp., Dept. RA, Pioneer-Central Div., Davenport, Iowa.*

Wayne M. Hoffman
NYC Transport

C. P. Blair
N&W

A. H. Lindsay
Gould-National

B. Charles Walters
REB

People in the News

AKRON, CANTON & YOUNGSTOWN.—**Alan R. Hudson** and **Hugh J. Donohue** appointed general agents, 233 Broadway, New York.

ASSOCIATION OF AMERICAN RAILROADS.—**Harry A. Campbell,** director and chief inspector, Bureau of Explosives, 63 Vesey Street, New York, retired Feb. 29. **Thurber C. George,** assistant chief inspector, Bureau of Explosives, appointed chief inspector.

ASSOCIATION OF WESTERN RAILWAYS.—**Al E. Greco** has joined the public relations staff. He was formerly associated with the Pullman Co.

BALTIMORE & OHIO.—**Gordon L. Skeggs,** traveling freight agent, Dayton, Ohio, promoted to district freight agent, Buffalo, N. Y.

BURLINGTON.—**S. M. Graham,** commercial agent, Dallas, appointed general agent there, replacing **H. P. Parker,** named general freight agent. **O. B. Sandidge,** general agent, **Fort Worth & Denver,** appointed assistant general freight and passenger agent, Burlington Lines.

CANADIAN NATIONAL.—**Patrick J. Levins,** purchasing agent, British Columbia district, Vancouver, B.C., appointed assistant to vice president, purchasing department, Montreal.

J. B. Fraser, general storekeeper, Western region, Winnipeg, Man., retired Feb. 29.

R. S. Waddington, mechanical engineer, office of chief of motive power and car equipment, Montreal, appointed assistant superintendent work equipment, Central region, Toronto, succeeding **W. W. Wynne,** transferred.

D. W. Brayshaw, personnel assistant, appointed acting regional personnel officer, Central region, Toronto, succeeding **W. J. Milks,** assigned to special duties.

Thomas E. Dolphin appointed division engineer, Prince Albert, Sask., succeeding **A. N. Lang,** resigned.

CENTRAL OF GEORGIA.—**Earle F. Bidez,** vice president—staff, Savannah, Ga., promoted to executive vice president. **Walter C. Scott,** general solicitor, elected vice president, executive department.

C. R. Peterson, assistant auditor of revenues, promoted to auditor of revenue, succeeding **T. J. Peterson,** who retired Feb. 29. **J. F. Becton,** director of research—efficiency, named auditor of machine accounting, research and efficiency. **N. M. Kennedy** appointed assistant to Mr. Peterson. **J. B. Neeley** named assistant to Mr. Becton.

FRISCO.—**C. A. Peebles,** division engineer, Western division, Enid, Okla., transferred to the River division, Chaffee, Mo., to replace **W. A. Schubert,** who retired Feb. 29. **R. N. Schmidt,** assistant division engineer, Chaffee, named to succeed Mr. Peebles. **I. Planchon,** general foreman, bridges and building and water service, Enid, transferred to Tulsa, Okla., succeeding **G. C. Payne,** appointed assistant division engineer, Amory, Miss. **E. F. Paschal** replaces Mr. Planchon.

KANSAS, OKLAHOMA & GULF—MIDLAND VALLEY—OKLAHOMA CITY-ADA-ATOKA.—**A. J. Daniel** appointed mechanical superintendent, Muskogee, Okla.

LOUISVILLE & NASHVILLE.—**Emerson C. Myers,** commercial agent, Chicago, appointed general agent there, succeeding **C. E. Wolf,** retired.

The Eastern Kentucky Division has been discontinued as a separate operating division and its territory will be operated as part of the Cincinnati division, under jurisdiction of **M. R. Black,** superintendent, Latonia, Ky.

NEW HAVEN.—**Craig D. Kelly,** trainmaster, Bridgeport, appointed assistant division superintendent, New Haven division. **Keith P. Young** appointed superintendent, New York freight terminals at Harlem River. **John M. Cassidy** named superintendent New Haven passenger and freight terminals at Cedar Hill. **Leo P. Gallagher** returned from retirement to the post of terminal superintendent, New Haven passenger terminals at Grand Central. **John G. Befus** appointed trainmaster, New Haven freight terminals, Cedar Hill. **John J. O'Connell** succeeds Mr. Kelly as trainmaster at Bridgeport. **Albin W. Olsson** named trainmaster, Stamford. **Joseph F. Daly,** trainmaster at Waterbury, Conn., transferred to Hartford, succeeding **H. F. Vaughan,** resigned.

NEW YORK CENTRAL.—**Robert C. Karvwatt,** director of communications, New York, in addition to his regular duties, has assumed the responsibilities of the general superintendent of communications, formerly held by **John L. Niesse,** retired (RA, Feb. 15, p. 39).

NEW YORK CENTRAL TRANSPORT CO.—**Wayne M. Hoffman,** executive assistant to the president of the **New York Central,** elected chairman of the board of the NYC Transport Co., wholly-owned subsidiary of the NYC. In his new position, Mr. Hoffman will assume responsibility for directing and expanding the Transport Company's activities in Flexi-Van, truck and air-surface transportation.

NORFOLK & WESTERN.—**C. P. Blair,** assistant vice president—coal, Roanoke, Va., promoted to vice president—coal traffic, a new position.

Winthrop B. Small, chief draftsman, promoted to office engineer, succeeding **Orvin M. Miles,** who retired March 1. **John H. Norwood,** resident engineer, succeeds Mr. Small.

Cecil E. D. Gwin, general agent, Atlanta, Ga., retired Feb. 1. **Lawrence E. Brett** appointed assistant general freight agent effective Feb. 1.

PENNSYLVANIA.—**William L. Wright, Jr.,** district passenger manager, St. Louis, appointed passenger manager, Southwestern region, Indianapolis, to succeed **Chester L. Merryman,** who retired Feb. 29. **James W. Miller, Jr.,** assistant manager-baggage, Philadelphia, named to replace Mr. Wright.

RAILWAY EXPRESS AGENCY.—**Chester J. Jump,** vice president—administration and finance, appointed to the new post of senior vice president, New York. **Robert A. Sauer,** controller, appointed vice president and controller, New York.

READING.—**Horace P. Henry,** assistant real estate agent, appointed real estate agent, Philadelphia.

SEABOARD.—**H. E. Richardson,** principal assistant division engineer, Americus, Ga., promoted to division engineer, North Florida division, Jacksonville, Fla.

SOUTHERN.—**Hubert Salyer,** district freight agent, Knoxville, Tenn., appointed division freight agent there, succeeding **John H. Winstead,** who retired March 1. **Raymond W. Ogle, Jr.,** commercial agent, Knoxville, appointed district freight agent, succeeding Mr. Salyer.

Maurice F. Hawkshaw, auditor of payrolls, named assistant comptroller, with headquarters remaining at Atlanta, Ga., succeeding the late **Noah Garner. H. T. Amy,** assistant auditor, Atlanta, promoted to auditor of payrolls.

TEXAS & PACIFIC.—**Harry W. Clark** appointed director of industrial development, effective May 1, to succeed **J. A. McCaul,** retiring. Mr. Clark, formerly industrial consultant, Texas Power & Light Co., joined T&P Feb. 15, and will serve as assistant to Mr. McCaul until his retirement.

WABASH.—**J. N. Sailor** and **E. W. Nixon,** assistant general managers-operations, St. Louis, appointed manager-transportation and manager-special operations, respectively. **F. A. Johnson,** assistant general manager-personnel, named manager-labor relations. **J. J. LaMonica** named to the newly created position of manager-station facilities. **E. Q. Johnson** appointed to the new position of manager-operations research.

WESTERN MARYLAND.—**J. P. Crowley** appointed assistant controller, with responsibility for the revenue division, internal audit and procedures functions, and the headquarters office service unit. **E. P. Holland** named assistant controller—financial, with responsibility for the general accounting division and budget function. **E. G. Reese** appointed assistant controller-disbursements and machine accounting, with responsibility for the disbursements division and Hagerstown machine bureau. **R. W. Long, Jr.,** appointed chief internal auditor; **R. C. Urich, Jr.,** chief procedures analyst, **A. J. Burns,** manager, revenue accounting; **R. S. Martin,**

manager, disbursement accounting; and **C. R. Madden**, manager, machine accounting.

OBITUARY

Thomas M. Hayes, retired traffic manager, **Wabash**, died Feb. 23 at Decatur, Ill.

Floyd S. Trudeau, 70, retired assistant general passenger agent, **New York Central**, died Feb. 25 in Victory Memorial Hospital, Waukegan, Ill.

Supply Trade

Howe Sound Co. has acquired all the outstanding stock of **Triplett & Barton, Inc.**, Burbank, Cal. The company's portable industrial X-ray equipment will be distributed through the sales organization of **Sperry Products Co.**, division of Howe Sound, in Danbury, Conn.

Wallace E. Felldin has been appointed sales manager of the New York plant of **Joseph T. Ryerson & Son, Inc.**, succeeding **Henry B. Williams**, named special assistant and sales consultant to the general manager.

John H. Feder, Jr., manufacturers' representative, has been appointed district manager, **Cornell-Dubilier Electric Corp.**, York, Pa. He will direct sales activities in eastern Pennsylvania, Delaware, Washington, D.C., Maryland and Virginia.

A. H. Lindsay has been named manager of railroad sales for **NICAD Division, Gould-National Batteries, Inc.**, Easthampton, Mass.

B. Charles Walters, supervisor of apprentice training, **Rock Island**, Moline, Ill., has been appointed director of the **Railway Educational Bureau** at Omaha, Neb., effective March 1.

R. E. Budorick, traffic manager of **Rail-Trailer Co.**, has been named director of special projects.

A. E. Allen has been appointed vice president for planning, **Symington Wayne Corp.**, New York, a newly created post.

Carl A. Reeb, western manager of **Kerite Co.** at Chicago, has been appointed assistant to the president at New York. **Marshall C. Blevins**, assistant western manager, succeeds Mr. Reeb. **Dale E. Skyllingstad**, district engineer, Chicago, succeeds Mr. Blevins.

Hydra-Cushion Inc., a new company in the field of railroad damage prevention equipment, has been formed by **Evans Products Co.**, Plymouth, Mich., and **Waugh Equipment Co.** of New York. The new company, with headquarters at 420 Lexington Avenue, New York, will manufacture and market the Hydra-Cushion Underframe — a combination mechanical and hydraulic cushioning device which protects both car and lading from impact damage. **Ben Colman**, vice president in charge of Evans' Railroad Loading Division, has been named chairman of the board of the newly formed company. President is **H. C. Hallberg**, president of Waugh.

George W. Luvisi, manager of product development, Transportation division, **Nalco Chemical Co.**, has been promoted to assistant manager of that division.

International Process Equipment Co., Dayton, Ohio, has acquired from **Magnus Metal Division of National Lead Co.** all necessary pattern equipment and jigs and fixtures for the manufacture of oil dividers, mechanical lubricators, injectors, and other steam locomotive specialties.

Karel A. Smith, railroad sales manager of the **Calco Division** of **Armco Drainage & Metal Products, Inc.**, Berkeley, Cal., retired Dec. 31, 1959.

Edward H. Peterson has been appointed comptroller of **Standard Railway Equipment Manufacturing Co.** He was formerly treasurer of **Crane Co.**

Michael Stumm, manager of advertising and promotion for **Crucible Steel Co. of America**, Pittsburgh, Pa., has been appointed director of information. **Leo J. Murphy**, manager — public relations, has been named manager — community services.

H. J. Quartemont has been appointed director of public relations and advertising manager of **Travelift & Engineering, Inc.**, Sturgeon Bay, Wis. **L. S. Hughbanks** has been named sales manager. **W. H. Stephenson** has been appointed regional sales manager.

Harry W. Colcombe, application engineer, has been appointed sales engineer, **Union Switch & Signal—Division of Westinghouse Air Brake Co.**, at the Pittsburgh district office.

H. L. Holderman, western representative for **Bird & Son, Inc.**, in its Tie Pad Division, retired Feb. 15.

Railroading After Hours with Jim Lyne

INDIAN RAILROADERS—Frank Grossman, who handles Santa Fe PR on the Pacific coast, tells me that he's checked with L. H. Parker, who heads labor relations with Indian employees for that company—and, as of early in February there were 790 original Americans on the Santa Fe. Of this number, 400 are section workers, 200 are in the mechanical department, 150 are in extra gangs and 40 hold miscellaneous positions. During the spring and summer, quite a number of additional Indians (500 to 600) are usually employed, bringing the total up well over 1,000.

There are, he says, quite a few Indian employees on the UP and the Rio Grande.

WHEN THE MAIL LEAVES—I just heard the other day of some more passenger service (two daily trains in each direction), now in jeopardy because the Post Office has put all the mail on the highway. The federal government pays extra rates for mail service, to sustain cow-pasture airlines, but often refuses to give standard-rate patronage to "border-line" railroad passenger services, thereby assuring their demise.

Is it the purpose of the federal government to force railroads out of the passenger business? Not consciously, I'd guess. But, conscious or unconscious, federal action (e.g., the tax on passenger fares) is working that way.

LYRIC PROSE ON RAILROAD TRAVEL—Speaking of passenger service, the finest piece of appreciative writing I ever read, about the continuing appeal of railroad travel—from the passenger's standpoint—is an article by E. B. White in the February 20 New Yorker magazine. He likes train riding and believes it can be reinvigorated. Like many passengers, however, he detects some flaws in the service, and believes vigorous action by railroads could restore the business to prosperity.

I doubt, however, whether you can safely generalize about things that will or will not boost passenger traffic. Surely (just to take one outstanding example) the SP service between San Francisco and Los Angeles incorporates about all superior-service suggestions (plus modest fares) that the most imaginative passenger could think of. Yet, the last time I heard, that business wasn't expanding. In some places, railroad action alone may be sufficient to start the traffic curve upward—but, elsewhere, railroads alone can't do it. A reasonable ratio of government traffic (including mail), plus an end to discriminatory taxes, would be a big help—enough to reverse the trend in some cases.

Just how many Americans think as author E. B. White does about the public advantages of railroad travel? It would be interesting and helpful to find out. Why not ask a representative sampling of them?

MARKET OUTLOOK *at a glance*

Carloadings Drop 3.2% Below Previous Week's

Loadings of revenue freight in the week ended Feb. 27 totaled 553,153 cars, the Association of American Railroads announced on March 3. This was a decrease of 18,472 cars, or 3.2%, compared with the previous week; a decrease of 22,181 cars, or 3.9%, compared with the corresponding week last year; and an increase of 1,961 cars, or 0.4%, compared with the equivalent 1958 week.

Loadings of revenue freight for the week ended Feb. 20 totaled 571,625 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, Feb. 20

District	1960	1959	1958
Eastern	91,562	91,803	76,986
Allegheny	107,426	104,194	78,714
Pocahontas	44,343	49,808	38,635
Southern	106,894	115,859	98,137
Northwestern	64,687	63,453	59,901
Central Western	110,207	111,582	96,687
Southwestern	46,506	47,042	45,859
Total Western Districts	221,400	222,077	202,447
Total All Roads	571,625	583,741	494,919
Commodities:			
Grain and grain products	48,708	54,595	48,094
Livestock	3,312	3,715	4,237
Coal	96,597	110,054	98,103
Coke	11,136	9,873	6,960
Forest Products	38,677	38,101	32,174
Ore	21,962	16,105	12,912
Merchandise l.c.l.	38,472	43,408	41,462
Miscellaneous	312,761	307,890	250,977
Feb. 20	571,625	583,741	494,919
Feb. 13	580,103	567,188	533,186
Feb. 6	587,933	565,752	532,396
Jan. 30	601,900	582,456	550,532
Jan. 23	587,339	555,750	551,088
Cumulative total, 7 weeks	4,126,172	3,991,895	3,804,814

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Feb. 20 totaled 10,719 cars, compared with 6,823 for the corresponding 1959 week. Loadings for 1960 up to Feb. 20 totaled 69,870 cars, compared with 46,842 for the corresponding period of 1959.

IN CANADA.—Carloadings for the seven-day period ended Feb. 21 totaled 66,080 cars as compared with 66,198 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Feb. 21, 1960	66,080	30,257
Feb. 21, 1959	65,788	28,796
Cumulative Totals		
Feb. 21, 1960	467,824	216,325
Feb. 21, 1959	478,010	197,898

New Equipment

FREIGHT-TRAIN CARS

► *Canadian Pacific.*—Ordered 1,000 50-ton box cars—500 from Canadian Car and 500 from National Steel Car.

► *Frisco.*—Acquired 100 50-ft insulated box cars under lease from General American.

► *Norfolk & Western.*—Will build 1,000 85-ton, roller-bearing, coal-carrying hopper cars in its Roanoke shops at a cost of $12,000,000. The car—which the road says will be the only 85-ton hopper on any U.S. railroad—is an original N&W design. Construction will begin about Aug. 1, upon completion of two lots of 70-ton cars. The new car's advantages, according to the N&W, include lower first cost, lower empty weight, and generally lower handling and maintenance expense per ton of capacity than for the conventional 70-ton car. The N&W's Roanoke shops now have orders on the books to keep the assembly line going to the end of this year.

► *Union Pacific.*—Ordered 1,350 freight cars, including 300 50-ton plug-door box cars, 300 70-ton flat cars and 200 50-ton insulated box cars from company shops; 200 gondolas and 150 2,100-cu ft capacity covered hopper cars from Pullman-Standard. Builder is not identified on order for an additional 200 gondolas. All cars are scheduled for 1960 delivery. Order is part of an overall equipment program also calling for 45 passenger cars (see below) and valued at a total of $26,000,000.

PIGGYBACK

► *Canadian Pacific.*—Ordered 100 46-ft piggyback flat cars from National Steel Car.

PASSENGER-TRAIN CARS

► *Union Pacific.*—Ordered 20 44-seat, leg-rest reclining seat coaches from the Budd Co.; and 25 baggage cars from ACF. Deliveries are scheduled for late 1960 and early 1961.

LOCOMOTIVES

► *Canadian Pacific.*—Ordered 45 new locomotives as follows: 25 1,200-hp branch line diesel-electric units from General Motors Diesel, Ltd.; 15 1,000-hp diesel-electric road switchers from Montreal Locomotive Works; and five 44-ton diesel-hydraulic locomotives from Canadian Locomotive.

SPECIAL

► *National Railways of Mexico.*—Will use proceeds of a new $20,000,000 Export-Import Bank loan to purchase rolling stock and communications and shop equipment. This is part of a $113,000,000 rehabilitation program which began in 1955 and which has been assisted by previous Export-Import Bank loans for $23,300,000, $28,600,000 and $5,400,000.

Highway Tanker Curbs Urged

► **The Story at a Glance: The fiery collision of a passenger train and a double-bottom highway tanker last week brought new demands for restricting the movement of inflammable and explosive cargoes on the highways.**

In Cleveland, Grand Chief Engineer Guy L. Brown called for renewed efforts to "prevent the transportation by truck of dangerous explosives over highways."

H. E. Gilbert, president of the Brotherhood of Locomotive Firemen & Enginemen, said the collision "serves as a tragic reminder that it is time for management and labor to cooperate in every way possible to prevent another such holocaust."

At approximately 5:05 p.m. last Tuesday (Pacific Coast Time), the Santa Fe's east-bound "San Francisco Chief" crashed into a loaded fuel oil truck at a crossing near Bakersfield, Calif. The tanker exploded and spewed death-dealing flames onto the crippled train. A casualty count 24 hours later listed 14 dead (including the engineer, fireman and the truck driver) and 43 injured (34 passengers, nine ATSF employees).

The Bakersfield tragedy was the latest (and the worst) in a long series of train-highway tanker collisions that have taken the lives of many railroad employees, and caused railroad union leaders to demand legislation either to banish all explosive and inflammable cargoes from the highways, or to impose rigid restrictions on their movement.

While rescue crews were still probing the charred wreckage, Grand Chief Guy L. Brown of the Brotherhood of Locomotive Engineers fired off a telegram to Santa Fe President Ernest S. Marsh, Association of American Railroads President Daniel P. Loomis and Joseph H. Hays, general counsel of the Association of Western Railways.

Mr. Brown said the Bakersfield collision "should spur all of us to renew our efforts to prevent the transportation by truck of dangerous explosives and inflammables over highways." He added that "national and state representatives of the Brotherhood of Locomotive Engineers are available and anxious to do everything possible to stiffen existing laws and regulations to make such accidents impossible."

A similar telegram went to Mr. Loomis from BLF&E President H. E. Gilbert.

A BLE spokesman recalled that it was just three years ago this month that Chief Engineer Brown notified the brotherhood's legislative chairmen in 26 states to seek laws requiring all trucks carrying inflammable or dangerous cargoes to "stop, look and listen" at railroad crossings—the minimum protection needed, in Mr. Brown's view.

BLF&E legislative chairmen in state capitals have also pressed for curbs on highway transport of inflammables and explosives.

That the highway transportation of inflammables is not solely a railroad worry was indicated by a president of the American Automobile Association (Harry L. Kirk) when he said, in 1957: "Hundreds of millions of pounds of explosives, poisons, acids, inflammable liquids and compressed gases are moved over the nation's highways and streets each year. Add to this the finding by the ICC that about 90% violate one or more safety regulations and the result is a hair-raising situation."

Following are some of the "hair-raising" situations that railroads have experienced:

Dec. 22, 1955—New York Central passengers scrambled to safety from their burning car when a West Shore division train collided with an oil truck near Newburgh, N. Y. The truck driver was killed.

April 11, 1956—Near Fort Green, Fla., an express messenger and a truck driver died in the flaming crackup of a passenger train and a gasoline truck.

June 17, 1956—The truck driver was killed and three railroad men seriously injured when a Rock Island freight train collided with a gasoline transport truck in Oklahoma City. The crash caused 3,000 gallons of gasoline to explode.

Nov. 27, 1956—At Michigan City, Ind., a highway truck loaded with fuel oil crashed into the side of a Chesapeake & Ohio freight train. Flames enveloped the wreckage, killing the engineer and fireman and the truck driver. Two more C&O employees were killed when the smouldering ruins exploded the following day.

Jan. 2, 1957—A Texas & Pacific passenger train and a tank trucker carrying bottled heating gas collided at a crossing near Stanton, Tex. The truck driver burned to death, but the train's crewmen and 250 passengers escaped injury.

Jan. 22, 1957—A North Western freight train and a tanker loaded with 6,000 gallons of fuel oil collided at a crossing near Cedar Grove, Wis., spreading flames which damaged a feed mill and a meat market.

June 25, 1957—At Sinton, Tex., the fireman and engineer were killed when a Missouri Pacific freight locomotive collided with a highway tanker loaded with 6,700 gallons of gasoline.

July 5, 1957—MoPac's "Colorado Eagle" was in collision with a highway tanker at Sheridan Lake, Colo. The engineer and fireman died in the resulting fire and explosion.

Aug. 12, 1957—A Gulf, Colorado & Santa Fe passenger train collided with a tank truck at Haslet, Tex., killing two train service employees and the truck driver.

Dec. 20, 1957—A Southern Pacific passenger train was in collision with a kerosene-loaded tanker at Paso Robles, Calif. Flames enveloped three diesel units and the first five passenger cars—but 183 passengers escaped injury when the engineer (who suffered burns) drove the train out of the flames.

Feb. 12, 1958—A gasoline-laden truck moved into the path of an Illinois Central passenger train near Fosters, La. The engineer and fireman and the truck driver died.

Oct. 24, 1959—A Canadian Pacific two-unit RDC train collided with a highway tanker heavily loaded with propane near Parkland, Alberta. The truck driver and five train passengers were killed.

Feb. 8, 1960—Fourteen passengers leaped to safety when a Pacific Great Eastern RDC hit a loaded fuel truck at a grade crossing near Vancouver, B. C. Two PGE employees were burned in the resulting fire and explosion.

Magnus Withdraws Pad

Magnus Metal Corp. has voluntarily withdrawn the Magnus Lubricator Pad from the market, effective Feb. 26. In an announcement sent to customers on that date, Magnus stated the reason for withdrawal as marginal performance of the lubricator based on available performance data, coupled with the company's desire to market only first line products. Magnus indicated that a new lubricator would be offered in the near future.

5-Minute Interview

with F. J. Orner, vice president & chief of operations, New Haven

That employee morale and good public relations are very closely tied together almost goes without saying. The New Haven, which last fall was having well publicized trouble with some vocal parts of its public, had a morale problem at the same time.

Both the employees and the public were concerned with train delays, as was the Connecticut Public Utilities Commission (which two weeks ago heard testimony that more than one third of the New Haven's trains arriving at Grand Central Terminal and the Hartford and New Haven stations were late during the last half of 1959).

While it's too early to tell whether the change will last, more NH trains are running on schedule in 1960. And not coincidentally, there are signs that both riders and employees are again beginning to look on the New Haven with favor, if not yet with affection.

From the outside, the big change in morale has seemed to coincide with recent changes in operating management that put direction of New Haven operations back in the hands of New Haven veterans (RA, Feb. 1, p. 32). For a first-hand account of what's going on, Railway Age called on new Vice President Frederick J. Orner (a home-guard with 24 years seniority).

Top management operations of the railroad are now in the hands of a "home team," Mr. Orner said, noting that more than a dozen shifts have been made in upper-level positions.

The new officers include, besides Mr. Orner (who started as a statistical clerk and was General Superintendent of Transportation, Manager, Freight Car Utilization, and General Manager-Freight Services before assuming his new post): Comptroller Hollis H. Coyle, former Assistant Comptroller with 36 years' service; General Superintendent William Schiebler, with almost 40 years' service in the Operating Department, starting as a yard brakeman; Assistant Comptroller Arthur J. Beauton, whose service with the road began in 1917; Assistant Division Superintendent Craig D.Kelly, with 25 years service; Terminal Superintendent Leo P. Gallagher, whose service dates back to 1913; Trainmaster John G. Befus; and Chief Train Dispatcher John J. Quinn. Messrs. Schiebler, Beauton, Kelly, Gallagher, Befus and Quinn are all returning to positions they have formerly filled.

The most urgent problem facing the new officers, Mr. Orner commented, is an old one to New Haven Management: how to get the road out of its financial difficulties without any new money available.

Mr. Orner attributed the new management's good showing in its first few weeks to a number of reasons (among them the traditional New England respect for continuity of service) which have improved morale—and with it efficiency. (On the first day under the new staff, only one of 28 commuter trains into New York was late.)

Other than in personnel, Mr. Orner's chief effort to date has been to come up with quick and low-cost improvements, like, for example, giving more attention to the condition of car interiors. A few car cleaners have been added, but most of the improvement has come from increased efficiency of former cleaning crews.

The NH is continuing to spend money for maintenance and upgrading of its motive power, Mr. Orner reports. When it takes delivery of 30 additional FL-9's this summer, the road's flexibility (and with it, its ability to maintain schedules) will be considerably improved.

Schedules are not just a commuter matter, Mr. Orner declares. The New Haven has now had several weeks' experience with speeded up merchandise and piggyback schedules, via connections, to Chicago and is now also providing a new late afternoon schedule out of Boston to provide second-morning deliveries to St. Louis. Like the passenger schedules, these freight schedules have shown improvement in the last few weeks—a fact which again is probably traceable to morale.

Mr. Orner explains: "Our passenger crews, for instance, feel a little happier, and so they're agreeing with passengers again instead of arguing with them. And the passengers, well, our biggest complaint recently is from passengers who've missed trains because they're running on time again."

Long Island Departments Cooperate, Get Results

"On the Long Island, we used to have a departmental set-up that put trackwork in one pigeonhole, stations in another, bridges in a third, and we used to have trouble getting all these separate units to work together. On the Long Island now, we find it rather hard to differentiate between these elements. They all tie in together. We now have a unified engineering department."

These were the words LIRR President Thomas M. Goodfellow used at a meeting of the New York Metropolitan Maintenance of Way Club to describe how maintenance of way operations are integrated into overall operations.

"I cannot describe the benefits that have come from integrating these operations better than to say, what needed doing has gotten done," Mr. Goodfellow continued. "There are no arguments any more about whether our problem is a maintenance of way problem, or an engineering problem, or a problem for operations. Cooperation has become routine."

Among the examples of interdepartmental cooperation in maintenance work, Mr. Goodfellow cited the problem of short stations for long trains. "If you have a 16-car train pulling up to a six-car platform," he commented, "you not only have bad public relations because people have to walk through the cars to get out, you also have bad public relations because you cannot maintain schedules. So we handed this public relations problem to our maintenance of way people, who came up with some old ties, and we now have 16-car platforms."

New projects during the next six months, Mr. Goodfellow said, will include CTC on the Port Washington branch at a cost of $612,000. Answering a question about the possible use of dual-power diesel-electric/electric locomotives like the New Haven's FL-9 units, Mr. Goodfellow commented that the problem of runaround at Penn Station was a drawback, "However," he said, "perhaps Ben Heineman's Push-Pull cars on the C&NW, combined with the FL-9's, would be the answer."

Track-Car 'Compromise' Hit

Railroad labor's "alleged cure for the featherbedding inherent" in the track-car bill would be "utterly ineffective for that purpose," the AAR says. The bill, S.1425, would give the ICC power to prescribe rules for the operation of track motor cars.

The AAR position was set out by President D. P. Loomis in a statement filed with the Senate's Surface Transportation Subcommittee, which is considering the proposed legislation. Labor's proposal came in a statement filed on behalf of the Railway Labor Executives' Association by H. C. Crotty, president of the Brotherhood of Maintenance of Way Employees.

The proposal is that the bill be amended to stipulate that nothing in it shall be construed as "having the effect of requiring any minimum crew or prescribing crew consists on or otherwise regulating the personnel operating or carried upon any vehicle." A similar provision was included in the Power Brake Act, which gives the ICC authority to prescribe standards for operation and maintenance of train brakes.

The amendment would be ineffective, Mr. Loomis said, because it relates "only to construction of the bill itself," whereas the "most flagrant featherbedding that would follow would arise from the National Railroad Adjustment Board's construction of other documents—labor agreements and prior awards. The board would have no occasion to construe S. 1425."

"Moreover," the AAR president added, "many additional telegraphers would have to be hired under any of the several systems of motor car operation authorized by the bill. The amendment does not purport to touch this area of featherbedding."

As to the similar provision in the Power Brake Act, Mr. Loomis said the track car bill presents "no parallel" to that act. "Here," he explained, "the [railroad] rules are not and cannot be uniform, the Commission has no directive to adopt them, and the RLEA bitterly opposes the rules of all but a handful of railroads."

Referring to RLEA's statements about motor car accidents, Mr. Loomis said the great majority of them "have no relation whatsoever to operating rules and therefore have no relevance to a bill that relates solely to operating rules."

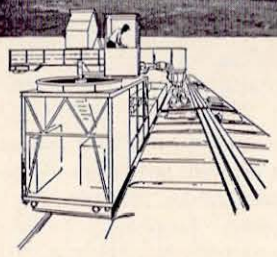
The AAR president went on to give figures showing how the motor car safety record has improved since 1955 when the AAR promulgated minimum standards for operation of such cars.

The Loomis and Crotty statements were originally scheduled as oral presentations at public hearings which the subcommittee cancelled. In transmitting his statement to Senator Smathers, subcommittee chairman, Mr. Loomis urged that a public hearing be held.

PSICP Lines Escape Commuter Fare Rise

Philadelphia commuters, early this year, got the details of a plan that many hailed as a possible solution to the commuter problem. The city, with the cooperation of the Pennsylvania and Read-

THE DIFFERENCE BETWEEN "SLOW" AND "GO" IN BUNKER ICING OPERATIONS



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ing Railroads and railway brotherhoods set up the Passenger Service Improvement Corporation of Philadelphia (PSICP) as a non-profit corporation to "buy" rail service (RA, Jan. 25 p. 9). Last week, Philadelphia commuters got a mild taste of what is in store if PSICP fails.

The two railroads filed requests with the state Public Utility Commission and the Interstate Commerce Commission for fare increases of approximately 25%. The requested increases covered all suburban lines serving Philadelphia except those covered by the Passenger Service Improvement Corporation plan.

The railroads asked that the new fares be made effective April 1, with the provision that refunds on intrastate tickets would be made if the full increase were disallowed after investigation by the commission. In applying for the increase, the PRR cited an annual loss of "over $4,000,000 in the Philadelphia suburban service," while the Reading stressed that its "suburban passenger service loss was estimated to be in excess of $3,000,000 in 1959."

Philadelphia Solicitor David Berger, speaking for the city on the application for increased fares, pointed out that "there will be no fare increases on, nor curtailments of commuter service operations wholly within Philadelphia. These include 'Operation Northeast' and 'Operation Northwest' . . . and lines to Torresdale, Shawmont and Manayunk, which are about to come under the aegis of the new non-profit Passenger Service Improvement Corporation . . . We shall not oppose a temporary increase . . . This stabilizes service for the suburban communities, providing a breathing space during which a permanent solution for the commuter line crisis may be worked out."

To commentators who had wondered what kind of pressure the city could bring to bear to induce suburban communities to join its non-profit, commuter aid corporation, the fare application looked like an answer, as well as a much needed boost in rail suburban revenues.

Dividends Declared

DELAWARE & HUDSON.—50¢, quarterly, payable March 28 to holders of record March 8.

DENVER & RIO GRANDE WESTERN.—25¢, quarterly, payable March 21 to holders of record March 4.

ILLINOIS CENTRAL.—50¢, quarterly, payable April 1 to holders of record March 2.

KANSAS CITY SOUTHERN.—common, $1, quarterly, payable March 15 to holders of record Feb. 29; 4% non-cumulative preferred, 50¢, quarterly, payable April 15 to holders of record March 31.

UNION PACIFIC.—30¢, quarterly, payable April 1 to holders of record March 7.

WESTERN PACIFIC.—2-for-1 split of common shares, paid March 3 to holders of record Feb. 15.

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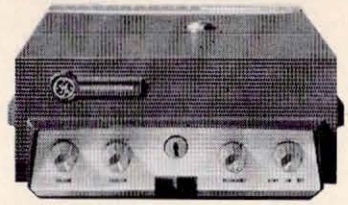

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You Ought To Know...

Burlington has inaugurated a new overnight Twin Cities - Chicago freight run that cuts about 3½ hours off the former evening-departure schedule. The train, designated DBC, will make the 418-mile trip in 11½ hours. It's designed particularly to meet needs of shippers of fresh meats and packinghouse products, chemicals and grocery items requiring expedited transportation. Burlington said it placed the schedule in effect in anticipation of a "substantial" increase in piggyback traffic from the Twin Cities to Chicago.

Intercity truck tonnage in 1959 was 15.2% above 1958, according to the Research Department of the American Trucking Associations. Largest gains were registered by the Central Region, up 20.1%; the Pacific Region, up 17.1%, and the Rocky Mountain Region, up 16.0%.

Railway Express Agency has asked the ICC to vacate its Feb. 5 suspension of proposed incentive rates on apparel. The rates, to apply nationwide, are termed "critical" by the agency.

Infrared thawing of ore may soon replace the present steam thawing method on the DM&IR. Plans are now on the drawing boards for a proposed full-scale infrared plant expected to be in operation late this year.

A U. S. railroad "first" was claimed March 1 by Soo Line, with the opening of a traffic office in Prince George, B. C., center of an area due for rapid economic expansion. Timber and forest products loom large in the predicted development of the district. Establishment of the new office, the road said, will enable Soo Line to give direct, personal service to lumber brokers and other businessmen who are setting up offices at Prince George.

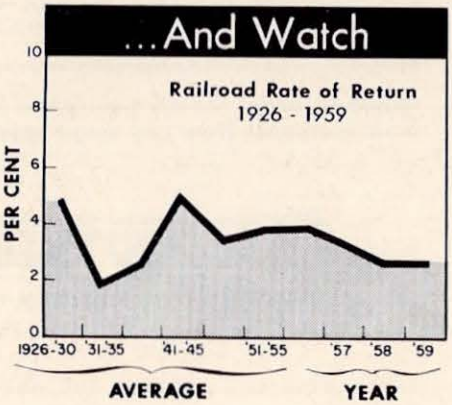
Wabash freight schedules have been streamlined and improved and the road's operating department is being reorganized to permit better management and closer supervision of operations, according to President H. H. Pevler. As part of the program, three assistant general managers have been appointed departmental managers in transportation, special operations and labor relations. Two new positions have been created: manager—station facilities and manager—operations research.

Direct Paris-Moscow passenger-train service is now available for the first time. Departure is at 2:09 p.m. from Paris, with arrival in Moscow at 9:30 p.m. the third day. Schedule is via Berlin and Warsaw.

"The Great Featherbed Fight" is the title of an article in the March 1960 issue of Fortune magazine. "When labor and management go to bed together, it is the rest of the country that gets raped," says Fortune. The magazine hails current rail management efforts to scrap wasteful work rules.

Railroad progress is limited in tempo only by the "bounds of physical and technical possibility," Milwaukee President William J. Quinn told the Traffic Club of St. Louis. "Modes of transportation as we know them today," he said, "exist almost wholly by virtue of new devices, new methods, and new concepts of shipper needs which only fifty years ago ranked with the impossible." Now, he added, railroad salesmen are striving to provide services "carefully tailored to the needs of today and the expectations of tomorrow."

...And Watch



Rubber-mounted rail set in a steel and concrete right of way is being tested on a portion of the New York City Transit Authority's shuttle between Grand Central and Times Square. For the tests, which involve 160 feet of track, 30-ft steel channel sections were mounted on permanent piers 30 inches apart. Rail sections, on rubber track pads, were secured to the piers with four stud bolts running through the pads and channels, and concrete was flowed into a 9-in. form on each rail. When the concrete had set, the bolts were tightened and the track restored to service. The new installation is expected to produce a smoother ride as well as to need less maintenance than conventional methods.

Fruehauf is expected to announce, shortly, its own designs of containers for single or multiple use. Plan, reportedly, begins with 20-ft units movable one or two on a truck; two to four on a flat car, with even more flexible refinements as a future possibility. Idea is same, but design is different, from "Strick-Tainer" developed by Fruehauf subsidiary.

North American Car Corp. has purchased Vendome Tank Car Co., which leases a fleet of 493 tank cars to shippers of petroleum, chemicals and vegetable oil in the Southwest. North American also acquired Railway Tank Car Service Inc. and Railroad Car Shops Inc., both owned by Vendome.

Radar grade crossing protection has been installed by the City of Newark, N. J. Where the Pennsylvania and the Lehigh Valley cross each other and two busy intersecting streets, timed and radar-controlled traffic signals have replaced gates on industrial tracks. Trains have to stop at the red traffic signal, and a trainman pushes a button. If the radar unit indicates no vehicular traffic, the train gets a green signal immediately, otherwise a maximum wait of 60 seconds may be required as the timer cycles. After the train has cleared the crossing, a trainman must again push a button to allow the signals to go back into their regular rotation for street traffic. The system also provides interlocking protection between the two railroads.

THE DEVELOPMENT OF AMERICAN INDUSTRIES

by John G. Glover and Rudolph L. Lagai

This recently published book surveys the varied, underlying role of industry in the economic growth of the United States from agrarian colonial times to the present atomic era. It presents a cross section of 36 representative industries. Each section is presented in a similar way, thus permitting the student or business executive to relate the important aspects of any one industry to those of any other. Coverage of the history and development of the railroad industry in the United States is particularly thorough. 1959. 835 pp. 40 illus. 6 x 9. $7.50

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by John G. Glover

This authoritative new book presents an up-to-date treatment of the principles of management. It presents a systematic approach to the subject with broad coverage of the field from the underlying philosophy of management to the work-saving potential of automation. Thorough treatment of the basic principles of management makes the book invaluable for both the student and the younger executive. More advanced materials on such subjects as research resources, budgetary control, linear programming and automation provide a strong appeal for the seasoned executive who seeks an authoritative and compendious statement of the more recent developments in management techniques. 1958. 406 pp. illus. 6 x 9. Cloth. $6.50

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How Well Do You Know the Profs?

Railroads, with some outstanding exceptions, do not appear to be maintaining as systematic and effective a two-way contact with college teachers of transportation and related subjects, as would be mutually advantageous to both sides in the interchange. The professors probably have more influence on the industry's long-run welfare than any other group of so-called "opinion leaders."

The eminent British economist, the late Lord Keynes, was a controversial figure, but there is one of his observations that even his staunchest opponents do not challenge. He said:

"The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood . . . Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist . . . it is ideas, not vested interests, which are dangerous for good or evil."

It is primarily because economists and political scientists devoted so little critical attention to what was going on in transportation during the 'twenties, 'thirties and 'forties that the huge program of government development and subsidization of non-railroad transportation got under way, and developed its present catastrophic momentum. College teachers got little encouragement during those years to exercise their analytical talents on transportation, and so—with some notable exceptions—they largely ignored it.

Lopsided and politically engineered national policies in transportation were the inevitable and unhealthy result. But now there is a re-awakening. Textbooks on transportation are being revised and brought up-to-date,* and the results of new and searching inquiry into transportation problems are beginning to appear in print. The dark ages of theoretical inattention to the economics and politics of transportation ('20's, '30's, '40's) have ended. Economists and political scholars are now analyzing transportation policy in increasing depth;† and in terms that, generally speaking, seem certain to assign to the railroads an expanding role in the nation's transportation polity.

*E.g., the 1959 edition of "Economics of Transportation" by M. L. Fair and E. W. Williams, Jr. (Harper)

†For example, the Brookings Institution's study Railroads and National Transportation Policy (by James C. Nelson); the Harvard book on Economics of Competition in Transportation; and the remarkable series of articles just being published in Duke University's quarterly "Law & Contemporary Problems" (Autumn and Winter 1959-60 issues).

For the college people—in economics, political theory, engineering—to do their important work adequately, they need to be kept constantly up-to-date. This they can do only if the various agencies of transportation cooperate fully and continuously with them. Such evidence as we've been able to assemble indicates that this cooperation is forthcoming in full measure from leading truckers and airlines. Railroad contacts with centers of higher education seem usually to be less frequent and less intensive. (There are, of course, some notable exceptions).

Just what constitutes adequate railroad contact with the academic community? We'd suggest that:

(1) Several executives of each railroad should personally know every on-line college professor who is working in transportation—whether in economics, politics, engineering, or law.

(2) When a railroad needs some research work done, an effort should be made to assign at least some of it to on-line college people; and independent research should be encouraged.

(3) Recruiting of new railroad people should be done, where possible, through college teachers—not only for permanent employees but for summer workers (as, for example, the Rock Island and Great Northern have done so extensively).

•

The other day we heard of an important trade association (in an industry far removed from transportation) which, at industry expense, brings 50 or so leading college teachers into a central point for an annual conference on the performance and problems of this industry. This isn't a propaganda effort. It is an honest interchange of information. To expose an industry's problems to a group of competent teachers of economics, politics and engineering is equivalent to exposing one's self to a physical check-up by a physician. It is a safeguard to health—and the economic physician cannot do a job of diagnosis, in the absence of close observation, any more than an M.D. could.

Some railroads have put their academic contacts on an adequately comprehensive and continuing basis. A lot of them have not. It's too important an area to be dealt with, catch as catch can. And it's an area in which the railroads' competitors are certainly not asleep.

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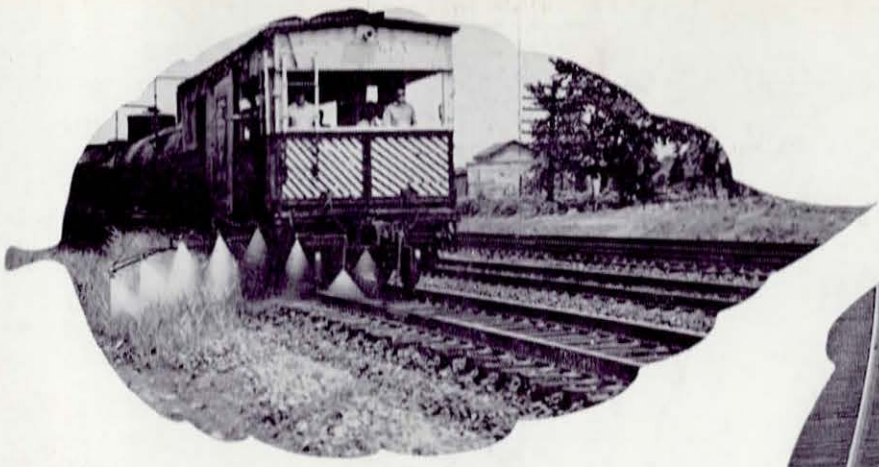

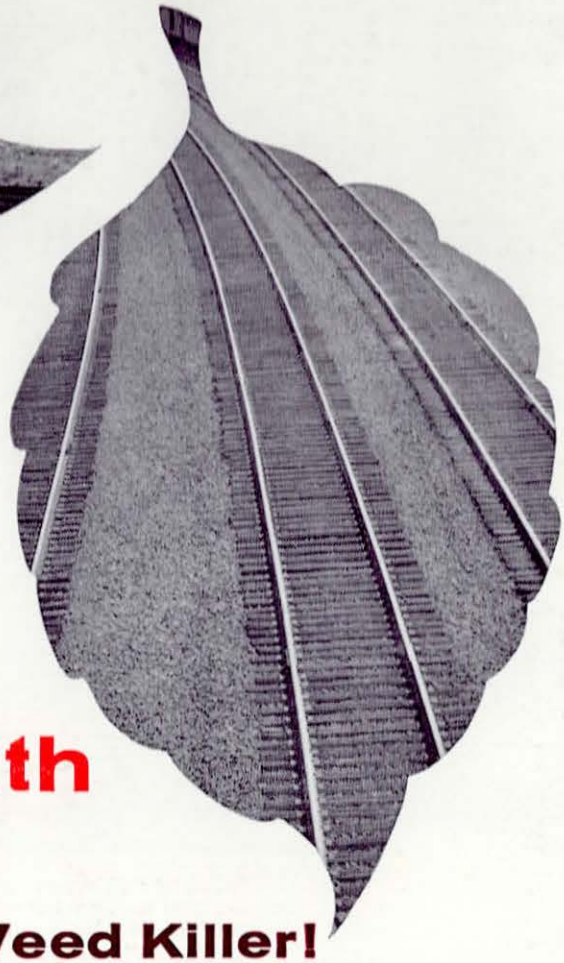

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